CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS. New York, May 24, 1906.

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CONSTRUCTION NEWS.

PLANS AND SPECIFICATIONS ON FILE.

The following Plans (P.), Specifications (S.), and Bidding Sheets (B. S.) may be seen at the office of The Engineering News Publishing Co., 220 Broadway, New York:

Bids close.	Work.	Place.	On file.	See issue.
May				
25	Bridge	Wilkes-Barre, Pa	P. S. & B. S.	4-26
26	Centrifugal pumps	Portsmouth, N. H.	S.	5-10
28	Dam	Hermison, Ore	P. S. & B. S.	5- 3
*29	Main canal	Belle Fourche, S. Dak	S.	4-26
29	Canal	Belle Fourche, S. Dak	S. & B. S.	5-17
—	Coaling station	S. Easton, Pa	P.	5-24
June				
*1	Heating plant, Fishers Island		P. S. & B. S.	5- 3
*1	Sewers	Pensacola, Fla	P. S. & B. S.	3-22
2	Motor generator sets	New York	S.	5-17
9	Concrete sewer	Altoona, Pa	S.	5- 3
*9	Paving	Bridgeport, Conn	P. & B. S.	5-17
*15	Distributing system	Mitchell, Nebr.	P. & S.	5- 3
*27	Storage works	Portland, Ore	P. & S.	4-26
*27	Storage works	Portland, Ore	P. S. & B. S.	4-26
Sept.				
15	Hotel bldg.	Manila, P. I	S.	3-29

*Work advertised in Engineering News.

LIST OF CONTRACTS PENDING.

Bids close. — Work. — Place. — On file. — See issue.

LIGHT, HEAT AND POWER PLANTS.

May 25. Street lighting, Minneapolis, Minn......May 24
May 28. Elec. power plant, Garden City, Kan..Apr. 5
Advertised, Eng. News, Apr. 5 to May 10.
May 29. Electric light plant, Clinton, S. C......May 10
June 1. Heating plant, Fishers Island..........May 3
Advertised, Eng. News, May 3.
June 1. Light plant, Huntington, Utah..........May 3
June 1. Electrical supplies, Fort Meade, S. Dak..May 3
Advertised, Eng. News, May 3 to 24.
June 1. Electric system, Fort Wood, N. Y......May 10
June 1. Electrical work, Omaha, Neb..........May 10
June 2. Generators, etc., Albany, N. Y..........May 10
Advertised, Eng. News, May 10 to 31.
June 2. Machinery, Albany, N. Y..............May 17
June 2. Motor generator, Washington. D. C...May 17
June 10. Light fixtures, Ft. Totten, N. Y.......May 24
June 13. Transmission poles, Chicago, Ill........Apr. 26
Advertised, Eng. News, Apr. 26.
June 14. Light & power, Ft. Sam Houston, Tex..May 24
June 15. Electric system, Fort Ethan Allen, Vt..May 24
June 28. Power-house, Washington, D. C.......May 17
Advertised, Eng. News, May 17 to June 21.
July 5. Water power for sale, Kenora, Ont......Mar. 15
Advertised, Eng. News, Mar. 15.
No date. Machinery, Commerce, Ga..............May 17

BRIDGES.

May 24. Bridge, New York, N. Y..................May 24
May 24. Temporary bridge, New York, N. Y....May 24
May 25. Eight bridges, Bremerton, Wash......May 24
May 25. Bridge, Wilkes-Barre, Pa..................Apr. 26
May 26. Two spans, Denver, Colo..................May 10
May 26. Superstructure, Maybell, Colo..........May 10
May 26. Two bridges, Indianapolis, Ind..........May 17
May 26. Nine culverts, Indianapolis, Ind..........May 17
May 26. Bridge, Waynesville, O......................May 17
May 26. Two steel bridges, Carrington, N. Dak...May 24
May 26. Three bridges, Goldendale, Wash........May 24
May 30. Bridge, Memphis, Mo......................May 24
June 1. Bridge, Memphis, Mo......................May 24
June 1. Bridge, Iola, Wis..........................May 24
June 1. Bridge, Tacoma, Wash....................May 17
June 2. Two bridges, Gallatin, Mo...............May 24
June 4. Approaches, etc., Columbus, O...........May 24
June 4. Bridges, Newcastle, Ind..................May 24
June 4. Six bridges, Decatur, Ind................May 24
June 4. Bridge, Council Grove, Kans............May 17
June 5. Bridge, Carrollton, Ga....................May 24
June 5. Three steel bridges, Holton, Kans......May 24
June 6. Bridge, Toledo, Ore......................May 17
June 6. Eight bridges, Fargo, N. Dak...........May 24
June 6. Seven bridges, Fargo, N. Dak..........May 17
June 7. Pipe-conduit bridge, N. Chicago, Ill....May 17
June 8. Steel bridge, Portland, Ore..............May 10
June 12. Two bridges, South Bend, Ind..........May 24
June 12. Two aqueducts, Le Sourdsville, Ohio....May 24
June 26. Bridge, Olongapo, P. I..................May 24
June 30. Bridges, St. John, N. B..................Apr. 12
July 1. Four steel bridges, Leland, La.........May 24

BUILDINGS.

May 25. Building, Rolla, Mo......................May 24
May 29. Hospital, Middletown, N. Y..............May 24
May 26. Buildings, Norfolk, Va...................May 24
May 29. Building, Baltimore, Md..................May 24
May 31. Buildings, Grand Junction, Colo........May 24
May 31. Addition, Hamilton, Ohio................May 24
June 2. Buildings, Fort Des Moines, Iowa......May 24
June 4. School, Lima, Ohio.......................May 24
June 4. Alterations, New York, N. Y............May 24
June 4. Electric wiring, etc., New York, N. Y..May 24
June 4. School, New York, N. Y..................May 24
June 5. Round-house, Fairview, Okla..........May 24
June 7. Court-house, Peru, Ind..................Apr. 26
June 10. Building, Columbus, Mo................May 24
June 14. Gymnasium and post, Delaware City, Del.May 24
Advertised, Eng. News, May 24 to June 7.
June 26. Court-house, Brunswick, Ga............May 24
Advertised, Eng. News, May 24 and 31.
Sept. 15. Hotel, Manila, P. I......................Mar. 29

WATER SUPPLY AND IRRIGATION.

May 25. Pipe, St. Stephens, N. B.................May 17
May 25. Filter supplies, Lawrence, Mass.........May 17
Advertised, Eng. News, May 17.
May 26. Pumping engine, Rockford, Ill..6......May 3
May 26. Centrifugal pumps, Portsmouth, N. H.May 10
May 26. Two wells, Cincinnati, Ohio..........May 24
May 27. Water mains, Staunton, Ill...........May 24
May 28. Pipe, etc., Youngstown, O.............May 17
Advertised, Eng. News, May 17 and 24.
May 29. Water system, Clinton, S. C............May 10
June 1. Water-works, Aurora, Minn............May 10
June 1. Water tower, Grand Rapids, Mich......May 10
Advertised, Eng. News, May 10 and 17.
June 2. Engines, etc., Albany, N. Y............May 10
Advertised, Eng. News, May 10 to 31.
June 4. Air compressor, Galesburg, Ill..........May 10
Advertised, Eng. News, May 10 to 31.
June 4. Deep well, Galesburg, Ill...............May 10
Advertised, Eng. News, May 10 to 31.
June 4. Distribution system, Philadelphia, Pa....May 10
Advertised, Eng. News, May 10, 17 and 31.
June 4. Electrical pumping equipment..........May 17
Advertised, Eng. News, May 17 and 24.
June 4. Laying mains, etc., Winthrop, Mass....May 24
June 5. Reservoir embankment, La Junta, Colo..May 10
Advertised, Eng. News, May 10 to 24.
June 6. Water mains, etc., Wyandotte, Mich....May 24
Advertised, Eng. News, May 24 and 31.
June 6. Meters, Atlanta, Ga.....................May 17
June 7. Water mains, North Chicago, Ill........May 3
June 7. Water meters, Yonkers, N. Y...........May 24
Advertised, Eng. News, May 24.
June 7. Water system, Fort William, Ont......May 24
June 12. Pipe, etc., Cincinnati, Ohio ....May 24
June 14. Pipe, Yonkers, N. Y....................May 24
Advertised, Eng. News, May 24.
June 18. Pipe, etc., Brandon, Man...............May 24
June 19. Water-works, Leesburg, Va............May 24
Advertised, Eng. News, May 24 and June 7.
June 20. Water-works, Tallula, Ill..............May 24
Advertised, Eng. News, May 24 and 31.
June 20. Pumping station, etc., Philadelphia, Pa.May 17
Advertised, Eng. News, May 17 and 24 and June 14.
July 7. Pumps, Garden City, Kans..............May 17
Advertised, Eng. News, May 17 to June 21.

SEWERAGE.

May 28. Sewers, New York, N. Y..............May 24
May 28. Boiler, New York, N. Y................May 24
May 28. Sewer pipe, Panama ....May 24
May 29. Sewers, New York, N. Y..............May 24
May 31. Sewers, New York, N. Y..............May 24
June 1. Sewer, Waukesha, Wis..................May 24
June 1. Pipe sewer, Batavia, Ill.................May 24
June 1. Drains and sewers, Pensacola, Fla......Apr. 26
Advertised, Eng. News, May 3 to 24.
June 1. Sewer, Mauston, Wis....................May 17
Advertised, Eng. News, May 17.
June 1. Sewers, Batavia, N. Y..................May 17
Advertised, Eng. News, May 17 and 24.
June 2. Sewers, Richland Center, Wis..........May 24
June 2. Lateral sewer, Boise, Idaho............May 24
June 2. Sewers, Milton, Mass....................May 24
July 2. Sewage system, Cape Girardeau, Mo....May 24
Advertised, Eng. News, May 24 and June 7.
June 4. Sewer, Zalienople, Pa....................May 24
June 4. Street work, Albany, N. Y..............May 24
June 4. Sewers, Macon, Mo.......................May 24
June 5. Concrete work, Brownwood, Tex.........May 10
June 6. Sewerage, Pensacola, Fla.................May 24
June 8. Intercepting sewer, Mount Carmel, Pa..May 17
Advertised, Eng. News, May 17 to 31.
June 11. Sewers, Washington, D. C..............May 24
Advertised, Eng. News, May 24 and 31.
June 12. Screening basin, etc., Cleveland, Ohio...May 24
June 12. Sewer, Medford, Ore.....................May 24
June 15. Sewer, Escanaba, Mich....................May 5
June 15. Sewer construction, Escanaba, Mich....May 3
June 26. Sewer, Vacaville, Cal.....................Apr. 5
No date. Sewer construction, Evansville, Ind....May 3

STREETS AND ROADS.

May 24. Granite blocks, New York, N. Y........May 17
May 24. Repairs, New York, N. Y.................May 17
May 24. Trap rock, New York, N. Y..............May 17
May 24. Road construction, Dandridge, Tenn....May 3
May 24. Road, Voluntown, Conn..................May 24
May 25. Paving and curbing, Washington, D. C..May 3
Advertised, Eng. News, May 3.
May 25. Paving, Holyoke, Mass...................May 17
Advertised, Eng. News, May 17.
May 26. Road improvement, Cleveland, Ohio....May 17
May 28. Road work, Albany, N. Y...............May 17
May 28. Repaving, etc., Binghamton, N. Y....May 17
Advertised, Eng. News, May 17 and 24.
May 28. Roads and walks, Fort Wood, N. Y....May 3
May 28. Grading, etc., Salt Lake City, Utah......May 10
Advertised, Eng. News, May 10 and 17.
May 28. Wood block pavement, New York, N.Y..May 24
May 28. Grading, etc., New York, N. Y.........May 24
May 29. Grading, etc., Baltimore, Md............May 24
May 29. Asphalt paving, Sioux City, Iowa......May 24
May 29. Paving, Troy, Ohio ....May 17
May 31. Paving, Ashland, Ohio ....May 17
May 31. Grading, North Chicago, Ill..............May 3
Advertised, Eng. News, May 3 and 10.
May 31. Grading, etc., New York, N. Y.........May 24
May 31. Asphalt, New York, N. Y...............May 24
May 31. Paving, Buffalo, N. Y....................May 24
June 1. Paving, Ashland, Ohio ....May 24
June 1. Brick paving, Wheeling, W. Va.........May 10
June 1. Brick paving, Fairmont, W. Va..........May 10
June 2. Paving, etc., Richfield Center, Wis....May 24
June 2. Roads and walks, New Bedford, Mass.May 24
June 4. Gravel roads, Columbus, Ind............May 17
June 4. Paving, Columbus, Ohio..................May 17
June 5. Macadam road, Versailles, Ind..........May 17
June 5. Road construction, Bloomfield, Ind......May 17
June 5. Sidewalks, St. Paul, Minn................May 10
June 5. Creosote block paving, Sioux City, Iowa.May 24
June 5. Grading, Amsterdam, N. Y..............May 24
June 6. Paving, Meadville, Pa....................May 24
Advertised, Eng. News, May 24.
June 7. Macadamizing, etc., Pleasantville, N. Y.May 24
Advertised, Eng. News, May 24 and 31.
June 9. Paving, Bridgeport, Conn...............May 17
Advertised, Eng. News, May 17 and 24.
June 11. Macadamizing, Morristown, N. J.......May 24
June 11. Paving, Patton, Pa.......................May 24
Advertised, Eng. News, May 24 to June 7.
June 12. Paving, Bluefield, W. Va..............May 24
Advertised, Eng. News, May 24 to June 7.
June 14. Constructing roads, Louisville, Ky......May 24
June 15. Grading, etc., Portland, Me.............May 24
June 18. Paving, Clarion, Pa......................May 24
Advertised, Eng. News, May 24 and 31.

MISCELLANEOUS CONTRACTS.

May 24. Canal, Billings, Mont.......................Apr. 12
Advertised, Eng. News, Apr. 12 to May 10.
May 24. Subway, Auburn, N. Y....................Apr. 19
Advertised, Eng. News, Apr. 19.
May 25. Steel bars, etc., Augusta, Ga...........May 10
May 25. Excavating, Sandusky, Ohio..............May 17
Advertised, Eng. News, May 17 and 24.
May 26. Mail conveyors, Chicago, Ill.............May 17
Advertised, Eng. News, May 17 and 24.
May 28. Lock and dam, Dallas, Tex..............Apr. 12
Advertised, Eng. News, Apr. 12 & 19 and May 7 & 24.
May 28. Timber, Albany, N. Y....................May 24
May 29. Main canal, Belle Fourche, S. Dak....Apr. 26
Advertised, Eng. News, Apr. 26 to May 17.
May 29. Canal, Belle Fourche, S. Dak...........May 17
May 31. Drainage, Osceola, Ark..................May 10
Advertised, Eng. News, May 10.
June 1. Ditches, Willmar, Minn....................May 24
June 1. Dam, Lakeville, Conn......................May 24
Advertised, Eng. News, May 24.
June 2. Two battleships, Washington, D. C.......Apr. 5
June 4. Ditch, Muscatine, Ia........................May 3
June 4. Dredging, Ft. Totten, N. Y..............May 10
Advertised, Eng. News, May 10 to 31.
June 4. Motors, etc., Lawrence, Kans...........May 24
June 4. Test borings, New York, N. Y.......May 24
Advertised, Eng. News, May 24 and 31.
June 4. Road roller, etc., St. Cloud, Minn......May 24
Advertised, Eng. News, May 24 and 31.
June 5. Grading land, York, Pa....................May 24
Advertised, Eng. News, May 24 and 31.
June 5. Dikes, New York, N. Y....................May 10
Advertised, Eng. News, May 10 to 31.
June 5. Reservoir embankment, La Junta, Colo..May 10
Advertised, Eng. News, May 10 to 31.
June 6. Dredging plant, Cuba ....Apr. 5
Advertised, Eng. News, Apr. 5 to May 31.
June 8. Cement, Portland, Ore.....................May 17
Advertised, Eng. News, May 17 to 31.
June 8. Supplies, Panama ....May 17
Advertised, Eng. News, May 24 and 31.
June 11. Screens, Fort Meade, S. Dak............May 24
Advertised, Eng. News, May 24 to June 7.
June 14. Levee work, Memphis, Tenn..............May 24
June 14. Dredging, Cocheco River, N. H..........May 17
June 14. Wharf and laundry, Savannah, Ga......May 17
Advertised, Eng. News, May 17 and 24.
June 15. Building material, West Point, N. Y.....May 17
Advertised, Eng. News, May 17 to June 7.
June 15. Distributing system, Mitchell, Neb.......May 3
Advertised, Eng. News, May 3 to 24.
June 18. Canal, Wichita, Kans........................May 24
June 20. Canal, Billings, Mont.......................May 17
Advertised, Eng. News, May 17 to June 14.
June 21. Canal, Klamath Falls, Ore..................May 17
June 21. Dredging, Bridgeport, Conn.................May 24
Advertised, Eng. News, May 24 to June 14.
June 27. Storage works, Portland, Ore..............Apr. 26
Advertised, Eng. News, Apr. 26 to May 10.
June 28. Dam, Hermiston, Ore.........................May 3
Advertised, Eng. News, May 3 to June 7.
June 29. Canal, Portland, Ore..........................May 10
Advertised, Eng. News, May 10 to June 7.
July 11. Butterfly dam, Chicago, Ill..................May 17
Advertised, Eng. News, May 17.
Sept. 4. Railway supplies, Siam (Foreign) ......Apr. 26
Advertised, Eng. News, April 26.

CIVIL SERVICE EXAMINATIONS.

May 26. Asst. C. E., Albany, N. Y.................Apr. 26
Advertised, Eng. News, Apr. 26 and May 8.
May 26. Bridge Designer, Albany, N. Y.......Apr. 26
Advertised, Eng. News, Apr. 26 and May 8.
May 26. C. E. Draftsman, Albany, N. Y.........Apr. 26
Advertised, Eng. News, Apr. 26 and May 8.
May 26. Jr. Bridge Draftsman, Albany, N. Y.....Apr. 26
Advertised, Eng. News, Apr. 26 and May 8.
May 26. Leveler, Albany, N. Y.......................Apr. 26
Advertised, Eng. News, Apr. 26 and May 8.
June 2. Chainman-Rodman, New York, N. Y..May 10
Advertised, Eng. News, May 3.
June 2. Asst. Engr., New York, N. Y..........May 10
Advertised, Eng. News, May 3.
June 2. Topo. Draftsman, New York, N. Y....May 10
Advertised, Eng. News, May 3.
June 6. Topo. Draftsman, Panama ....May 10
June 6. Mech. Draftsman, Panama.................May 8
June 6. Assay Asst., Washington, D. C...........May 8
June 6. Aid, Coast Survey, Washington, D.C....May 8
June 6. Draftsman, Idaho, etc........................May 8
June 7. Inspector of Carpentry, etc., New York..May 17
June 12. Inspector, pipe laying, New York, N.Y.May 17
June 13. Mech. Supt., Manila, P. I..............May 17
June 13. Statistician, Washington, D. C.........May 17
June 13. Engineer, etc., Winnebago, Nebr........May 17
June 13. Mech. Draftsman, Rock Island, Ill....May 17
June 13. Custodian, West Point, N. Y...........May 17
June 13. Map Printer, Washington, D. C........May 17

PROPOSED WORK

ENGINEERING NEWS desires to obtain the **earliest possible reliable information** concerning all projected work. We will appreciate any items that you may send us. Copies containing such information will be mailed to you, upon request.

Address, **WAINWRIGHT RANDALL**
Editor Construction News

RAILWAYS.

The names of parties awarded contracts are printed in capital letters.

BALTIMORE & OHIO.—We are informed that the Baltimore & Ohio R. R. Co. is preparing plans for improvements on its Washington branch, which will cost about $2,000,000. This branch is 31 miles long, extending from Relay to the New Jersey Ave. station in Washington. Grade will be altered and all curves either eliminated or reduced. Surveys have begun on the cut-off freight line which will be built from Sykesville, Md., to a point on the Philadelphia division near the Susquehanna River. According to press reports it is the intention of the Pennsylvania R. R. Co. to use this cut-off jointly with the Baltimore & Ohio road, and to build a connecting link from Sykesville to the Washington main line. The estimated cost of these improvements will be $5,000,000 to the Baltimore & Ohio and $2,000,000 to the Pennsylvania. D. D. Carothers, Baltimore, Md., is Ch. Engr. Baltimore & Ohio, and W. H. Brown, Philadelphia, Pa., is Ch. Engr. Pennsylvania.

CHICAGO & NORTHWESTERN.—It is reported that this road is preparing to build a line from Harrold, S. Dak., to a junction with the main line at Lebanon. Graders are already on the ground at Harrold, and the work will be pushed forward as rapidly as possible. E. C. Carter, Chicago, is Ch. Engr.

CHATTANOOGA, ANDERSON & ATLANTIC.—This company has been formed for the purpose of building a road from Chattanooga, Tenn., to Charleston, S. C., via Ringgold, Ga., Ducktown, Tenn., Murphy, N. C., Clayton, Ga., and other less important towns. It is planned to have ownership of the road revert to the cities and towns through which it passes after a term of years. F. A. Johnson, Chattanooga, is V.-Pres. and Gen. Mgr.

CENTRAL OF GEORGIA.—PARKER & CO., of Macon, Ga., have been awarded the contract for grading for the freight terminal of the Central of Georgia Ry., at Athens, Ga. H. M. Steele, Savannah, Ga., is Ch. Engr.

CHICAGO TERMINAL TRANSFER.—Judge Kohlsaat, in the Federal Court at Chicago, has authorized J. N. Faithorn, receiver of the Chicago Terminal Transfer R. R. Co., to issue receiver's certificates not to exceed $3,500,000. The proceeds will be used to elevate the tracks of the railroad.

CHICAGO, BURLINGTON & QUINCY.—Surveyors are at work on a line for the Chicago, Burlington & Quincy Ry. Co., to run from Shabbona northeast toward Milledgeville, to strike the line of the Chicago, Burlington & Northern road east of that place, the latter company connecting with the St. Louis-St. Paul division at Savannah. The survey is being made to secure a shorter line from Chicago to St. Paul. T. E. Calvert, Chicago, is Ch. Engr.

CANADIAN NORTHERN.—It is reported that the Premier of Manitoba has authorized the Canadian Northern Ry. Co. (bonds of which are guaranteed by the Provincial Government) to build an extension of the Oak Point branch as far as Lily Bay, on the east shore of Lake Manitoba, and later to the head of the lake. Work is being rushed on extensions on the main line, and the contractors are pushing on to the Rocky Mountains and Jasper Pass. It is also proposed to grade 50 miles at once to Lac St. Anne and 25 miles of steel are now being laid on the roadbed already graded. The company also proposes to extend its Morrisville branch which is graded 25 miles, another 75 miles to Athabaska Landing this summer, and another branch from Strathcona to Fort Saskatchewan. Wm. H. McLeod, Winnipeg, Man., is Ch. Engr.

GULF, COLORADO & SANTA FE.—It is reported that the Gulf, Colorado & Santa Fe Ry. Co., which has lately let contract for the extension of the Jasper & Eastern Ry. to Oakdale, La., will continue an extension from that place to Baton Rouge, La., with the object of ultimately reaching New Orleans. C. F. W. Felt, Galveston, Tex., is Ch. Engr.

GRAND TRUNK PACIFIC.—J. D. McARTHUR, of Winnipeg, has been awarded the contract to build 250 miles of the Grand Trunk Pacific Ry. Co.'s line from Winnipeg to the junction with the Lake Superior branch. This is said to be the largest contract in railway construction ever handled by a single man in Canada. HOGAN & McDONALD at the same time signed a contract to construct 150 miles of the line to Quebec along the upper St. Maurice to La Lugne. Jos. Hobson, Montreal, Que., is Ch. Engr.

GREAT NORTHERN.—According to the published reports of an interview with Mr. J. J. Hill, President, this road intends to build into the great wheat district of northwestern Canada, but is not yet seriously considering an extension of its Canadian lines to the Pacific coast. The report quotes Mr. Hill as follows: "We have brought our terminals into Winnipeg, and shall lose no time in constructing our connecting link from the Minnesota boundary into the city. It should be finished next fall. We are now pushing forward the grading on the branch lines from Gretna to Portage la Prairie and from Bottineau, via Boissevain and the Souris, to Brandon, having got terminals in both Brandon and Portage la Prairie. About the main line. We have fully decided on that. We have a line in British Columbia to Fernie, and we propose, without unnecessary delay, to push that line across the great western prairie until Winnipeg is reached. We do not consider the territory south of the Canadian Pacific from Lethbridge to near Weyburn good land, and we propose to cross the Canadian Pacific and run a line considerably north of it, where the country is good, and the local traffic is sure to be heavy. We are not so much concerned in the most direct transcontinental route for passenger traffic as in tapping a territory prolific in agricultural resources. We can run in an almost direct line from the boundary to Duluth over a country where we can obtain a grade not exceeding 0.4% on a total mileage of 280. Then add the sixty odd miles from the boundary to Winnipeg."

LITTLE RIVER.—The Little River R. R. Co. is having a location made for a branch along the east prong of Little River, about 15 miles in all. Bids will be asked for in a month or so. A. W. Lee, Clearfield, Pa., Pres. W. B. Townsend, Townsend, Tenn., Gen. Mgr. E. W. Hess, Clearfield, Pa., Engr.

MISSISSIPPI.—We are officially informed that the Ingram-Day Lumber Co., Lyman, Miss., will relay ten miles of standard gage track with 60-lb. rails and construct two 10-mile branches. The work will include two long pile trestles and several smaller ones. Contract will soon be let for grading. The company will need steel rails, drain pipe, and rolling stock. Charles L. Wood, Columbus, Miss., is Engr.

MISSOURI, KANSAS & TEXAS.—The Missouri, Kansas & Texas Ry. Co. has awarded the contract to PATTON & GIBSON, of Pittsburg, for the first portion of the work for reduction of grades on the main line of the system. This will cover 45 miles of the line, extending from Atoka, Ind. T., to the Red River. J. W. Petheram, Dallas, Tex., is Ch. Engr.

NORTHERN PACIFIC.—C. M. Levey, V.-Pres. of the Northern Pacific Ry. Co., informs us that the contract for a branch line of the Portland & Seattle Ry. from Pasco east along the north bank of the Snake River, in Washington, to Texas Ferry, has been awarded to SIEMS & SHIELDS, of St. Paul, Minn.

PENNSYLVANIA.—We are informed that track elevation work in Cincinnati will begin at once. Thos. Rodd, Pittsburg, Pa., is Ch. Engr. J. P. Bouscareau, City Hall, Cincinnati, is Supt. of Track Elevation.

SOUTHERN PACIFIC.—MARLOW & HODGE have been awarded the contract for grading the Port Allen division of the Lafayette & Baton Rouge branch of the Southern Pacific Co. W. Hood, San Francisco, is Ch. Engr.

TEXAS SOUTHEASTERN.—The Texas Southeastern R. R. Co. has filed an amendment to its charter for a main line from Diboll northwest across the Neches River and thence southward to Everett, Tex.; also for a branch from a point about seven miles from Diboll to Lufkin, and for another branch from a point about 17 miles from Diboll to Weches, Tex. The company now operates 50 miles, and the proposed addition will give it more than 100 miles of track. W. J. Raef, Diboll, Tex., is Gen. Mgr.

YREKA R. R.—H. L. Walther, Supt. and Mgr., writes that work will soon begin on the extension of this road from Yreka to Fort Jones, Greenview and Etna, Cal. Capital for construction has been secured and engineers are now working on the survey of the route. Right-of-way is being secured. The work will include 42 miles of new construction and eight miles of reconstruction. G. W. Scott, 1723 Central Ave., Alameda, Cal., is Pres.

ELECTRIC RAILWAYS.

The names of parties awarded contracts are printed in capital letters.

MEDINA, N. Y.—The Buffalo, Lockport & Rochester R. R. Co. has secured control of the interests of the Albion Electric Ry. Co., which was granted a franchise to construct and operate a street railway system about two years ago. The new owners of the company are trying to have the franchise renewed and if successful will build the road to connect with the Rochester Electric Ry. Co. at Lyell Ave. in Rochester, and with the International Traction Co., at Lockport, thus making it possible to go direct from Buffalo to Rochester over one road. The grading has been completed from Rochester to Spencerport. Chas. B. Hill, Buffalo, is Pres.

DUNKIRK, N. Y.—It is reported that a franchise has been granted the Dunkirk Street Railway Co. and that work will begin at once. Terms of the franchise are: Length of franchise, 99 years. Transportation of coal and supplies to power station without cost. Switches and turnouts at points specified by authorities. After five years to pay 1% of gross receipts into the city treasury. Within two years to construct lines on any specified street ordered by council, or forfeit rights therein. W. J. Hellery, of the Buffalo, Dunkirk & Western R. R., Fredonia, is interested.

ROCHESTER, N. Y.—We are officially informed that arrangements have been made by the J. G. White Co., 41 Wall St., New York, to build an interurban electric railway between Rochester and Lockport, paralleling the lines of the New York Central R. R. Co. The contract calls for an expenditure of $2,000,000, and the syndicate behind the project is represented by Frederic Nichols, E. R. Wood and Sir Henry M. Pellatt, all of Toronto, who are connected also with the Ontario Power Co. Under the terms of the contract J. G. White & Co. will grade 54 miles for double track road, though only a single track will be laid at first, the second track to be added when the traffic warrants further expenditure. The contract includes all the overhead work, the building of five sub-stations with the electrical equipment, the building of repair shops and car barns and the supply of all rolling stock. The track construction will be heavy, and the gradients will be so restricted as to permit the maintenance of high speed. The rolling stock will be of the standard design for interurban service, and will include express cars, passenger cars and snow plows. Power will be supplied by the Ontario Power Co. at 60,000 volts pressure, which will be reduced to the standard working pressure for direct current railway service. The bridge structures, of which there will be a considerable number, will be of steel and concrete. There will be no grade crossings. From Rochester west to Brockport, a distance of 16 miles, including the towns of Spencerport and Adams Basin, the electric road will exactly parallel the main line of the New York Central on the north side. About 2½ miles west of Rochester the lines of the Buffalo, Rochester & Pittsburg will be bridged, and ¾ of a mile further west there will be a bridge over the barge canal. At Holley, 4½ miles west of Brockport, there will be a bridge over Sandy Creek. A short distance west of Holley there will be a deviation of about ¾ of a mile from the tracks of the Central, but the gap is closed again before reaching Albion, 9 miles further west. The electric road will run almost due west from Albion for 6 miles, to include the town of Knowlesville. From Knowlesville the interurban line will run into Medina. The main construction offices of J. G. White & Co. will be established at Medina. From Medina the line will run to Middleport; two miles west of Middleport the electric road will cross the tracks of the Central at a small angle on a long bridge. This is the only crossing of the single tracks. From this point west to Lockport, 9 miles, the interurban lies to the south of the route of the Central. Work will be commenced immediately.

TITUSVILLE, PA.—It is reported that the Titusville Electric Traction Co. has decided to begin immediately the work of building the electric railway from Titusville to Oil City over the Cherrytree route across the South Franklin St. bridge, through Cherrytree Township to Cherrytree and Rouseville, where the line will connect with the line of the Citizens' Traction Co., of Oil City. W. J. Smith, Titusville, is Gen. Mgr., and E. J. Robertson, Titusville, is Ch. Engr.

FREDERICK, MD.—The Baltimore, Frederick & Hagerstown Electric Railway Co. has given a contract to WESTINGHOUSE, CHURCH, KERR & CO., 10 Bridge St., New York, to build its line from Frederick to Hagerstown, Md., 26 miles. The entire line will be 78 miles long, the distance from Baltimore to Frederick being 52 miles. About seven miles of sidings will also be built. James E. Ingram, Jr., of Baltimore, is Pres., and J. Roger McSherry, of Frederick, is V.-Pres.

WASHINGTON, D. C.—The Capitol Traction Co. will extend its 14th St. car line to the Brightwood Driving Park, about two miles. Contract for construction has been let to E. SAXTON. D. S. Carll is Ch. Engr. Geo. G. Boteler, Gen. Mgr., states that all grading has been finished on the last section of the Great Falls & Old Dominion R. R. Co.'s line and that track will be laid at once. Single track will be in operation by July 1 and bids will then be asked for laying a parallel track along the entire route.

MARTINSBURG, W. VA.—J. F. Thompson and S. W. Walker, representing a syndicate, have been granted a franchise to build an electric railway from Martinsburg through Charlestown and Shepherdstown to Harper's Ferry.

PENSACOLA, FLA.—The report that Stone & Webster, of Boston, have purchased all the securities of the Pensacola Electric Terminal Railway Co. and the Escambia County Light & Power Co., giving them the entire electric railway and lighting system of Pensacola, Fla., has been confirmed. A new company will be formed to operate the system, which includes about 12 miles of electric railroad and seven miles of steam railroad, which will be converted into electrical power lines. The purchasers are reported as saying that many improvements will be made immediately. The new organization of the railway company is as follows: H. H. Hunt, of Boston, Pres.; J. W. Leadley, of Boston, Gen. Mgr.; Robert Richardson, Treas.; directors, H. H. Hunt, of Boston; A. C. Blount, Jr., of Pensacola; Robert Richardson, J. C. Dunham, of Pensacola; Henry Palmer, John C. Rice and F. I. Bieler, of Boston.

CHATTANOOGA, TENN.—The Chattanooga Railways Co. is preparing to improve and practically rebuild its lines on the top of Lookout Mountain. The company is stated to have applied for a charter for this purpose. Capital, $100,000. Incorporators are: Foster V. Brown, Frank Spurlock, R. W. King, D. J. Duncan and Thos G. Newman.

MEMPHIS, TENN.—The Memphis & Horn Lake Railroad Co. is reported to be organizing to build an interurban electric railway from Memphis to Horn Lake, Miss., about 15 miles.

SHELBYVILLE, KY.—The Council of Shelbyville is stated to have granted right-of-way over Main St., from the eastern to the western limits, to the Louisville & Eastern Electric Ry. Co., for the purpose of constructing and operating an electric railway. Percival Moore, Louisville, is Gen. Mgr.

EMINENCE, KY.—The Shelbyville & Ohio Electric Railroad Co., which proposes to build a line from Shelbyville, Ky., via Eminence, Newcastle, Campbellsburg, Prestonville and Carrollton to Milton, Ky., will, it is reported, begin construction at once. Officers have been elected as follows: George W. Young, of Eminence, Ky., Pres.; Dr. W. L. Nuttal, of Newcastle, Ky., V.-Pres.; H. L. Fremd, of Eminence, Ky., Secy., and Luther H. Leber, of New York, Gen. Mgr.

HENDERSON, KY.—We are officially informed that the Henderson City Ry. will at once install new machinery as follows: 250-HP. boiler, 250-HP. engine and 150-KW. generator. Extension and improvement to track and overhead work is also planned. H. W. Richardson, 209 Keller Bldg., Louisville, Ky., is Secy. and Treas.

BUCYRUS, OHIO.—It is reported that the Chicago, New Washington & Bucyrus Ry. Co. has been incorporated with $500,000 capital and proposes to build an electric railway from Bucyrus to Chicago Junction. In connection with the Columbus, [illegible]tion & Bucyrus Ry. and the Sandusky, [illegible]walk & Mansfield Ry., this new link would complete a direct line from Columbus to Sandusky. The incorporators are: A. W. [illegible]as, E. L. Williams, W. H. Foxall, K. [illegible]llerson and H. E. McCabe.

BRYAN, OHIO.—The Cooperative Construction Co., of Chicago, is making surveys through Bryan for the proposed New York-Chicago electric air line. According to Theodore Nemoyer, Asst. Gen. Mgr. of the construction company, Bryan is likely to be the only city of any size in Ohio that will be touched by the new line.

COLUMBUS, IND.—J. E. [illegible], Ch. Engr., writes us that the preliminary surveys for the new line of the Indianapolis, Columbus & Southern Traction Co., from Columbus to Seymour, 19 miles, have been completed and right-of-way secured. THE SOUTHERN CONSTRUCTION Co. has the contract for construction and work will begin at once.

OSKALOOSA, IOWA.—The officers of the Oskaloosa & Buxton Interurban Railway Co. have practically completed plans for the commencement of the construction of this line from Oskaloosa to Buxton. They have made all the necessary arrangements for the letting of contracts for the grading, and taking over of the property of the Oskaloosa Light & Traction Co. The working out of these plans has taken considerable time, hence the delay in getting the early start expected. Their approval, which is considered to be a foregone conclusion, will be followed immediately by the construction of the road.

PIERRE, S. DAK.—The City Council has granted a franchise to Noah Newbanks, of Pierre, and Frank Fischer, of Fort Pierre, to construct and operate a street railway to be operated either with electricity or gasoline motors, in the city of Pierre. The city of Fort Pierre granted a similar franchise some time ago to the same parties, who intend to make it a single system for both towns.

OKLAHOMA CITY, OKLA.—The Oklahoma City & Shawnee Traction Co. has been chartered, with a capital of $1,200,000. The proposed line will pass through the counties of Oklahoma and Pottawatomie. The estimated length of the new road will be 40 miles. The directors are: Sherman Collin, of Ithaca, N. Y.; W. H. Crane, of Adrian, Mich.; Douglas B. Crane, J. B. Kinne, Oklahoma City, and others.

LEXINGTON, OKLA.—The Colonial Construction Co., which is building the Oklahoma City, Lexington & Sulphur Springs Electric Ry., will, it is reported, soon take steps to complete the line from Oklahoma City to Sulphur, Ind. T. The officers are: E. P. Spears, Pres.; O. E. Upp, V.-Pres.; J. S. Little, Treas., and George A Teague, Secy.

CASHMERE, WASH.—It is reported that the Big Red Apple Ry. Co. has filed articles of incorporation. The company will equip and maintain an electric railway in the Wenatchee Valley, between Leavenworth, Cashmere, Monitor and Wenatchee. The incorporators are: M. O. Tibbits, A. S. Burbank, C. A. Hueton and Thos. Bollman, of Cashmere.

WINNIPEG, MAN.—The Winnipeg Electric Ry. Co. has announced that it is the intention of the company to build and operate an extension of their lines to the new city park, about three miles. The company will also double track the Portage Ave. line. W. Phillips is Gen. Mgr.

LIGHT AND POWER PLANTS.

The names of parties awarded contracts are printed in capital letters.

FORT ETHAN ALLEN, VT.—Bids are asked until 2 p. m., June 15, by Capt. W. E. Cole, Q. M., Burlington, Vt., for furnishing and installing electric fixtures and service connections in the Administration Building at Fort Ethan Allen.

PITTSFIELD, MASS.—THE BOSTON BRIDGE WORKS, 47 Winter St., Boston, has been awarded the contract for structural steel for the Pittsfield Electric Co.'s new power-house at Silver Lake. Fred. Treat, Pittsfield, is Ch. Engr.

NEW YORK, N. Y.—The Electric Properties Co., organized under the laws of New York, has been incorporated with a capital of $12,000,000. It will take over all the capital stock of Westinghouse, Church, Kerr & Co., and its business will be to acquire, finance and develop properties in which electricity is the principal factor. The directors are George Westinghouse, Charles H. Allen, Paul D. Cravath, George C. Smith, F. D. Underwood, H. S. Giddings, John A. Spoor, R. B. Van Cortlandt, E. G. Tillotson, Moses Taylor, John F. Wallace and N. W. Halsey. The Board of Directors will elect John F. Wallace President at its next meeting, and offices have been established at 111 Broadway.

PEEKSKILL, N. Y.—F. A. Stratton, who has secured control of the Peekskill Lighting & R. R. Co., as mentioned last week, writes us that machinery will be installed to double the capacity of the power-house.

CENTREVILLE STATION, N. Y.—The Centreville Lighting Co., of Centreville Station, has been incorporated with a capital of $100,000. The directors are Nathan and S. W. Lubow and I. D. Wolff.

FORT TOTTEN, N. Y.—Bids are asked until 2 p. m., June 12, by Capt. G. H. McManus, Constr. Q. M., for installing electric light fixtures in 13 buildings.

DUNMORE, PA.—WOLELKERS, BEILMAN & BITZELMAN have been awarded the contract for building a power plant for Carney & Brown at Dunmore.

CHARLESTON, W. VA.—It is reported that J. Turner Morehead will erect a power plant to develop the falls of the Kanawha River, near this city.

ASHEVILLE, N. C.—This city has awarded the contract for street lighting to the ASHEVILLE ELECTRIC CO. for five years at $65 per light. B. M. Lee is City Engr.

DAVISBORO, GA.—It is reported that T. J. Orr will establish an electric light plant here.

TUSCUMBIA, ALA.—The Muscle Shoals Power & Development Co. has been incorporated by S. Kernochan, Florence, Ala., and C. B. Ashe and J. R. Coleman, of Sheffield, Ala. The purpose of the company is to develop the power of Muscle Shoals, in the Tennessee, under a recent act of Congress, and to the end it is proposed to build dams, canals, water powers, electrical power and machinery to generate and supply electricity for lights, heat, power and other purposes; to manufacture electrical machinery, and to build and operate street and interurban railroads.

DANVILLE, KY.—Augustus Rogers, Supt. Kentucky School for the Deaf, writes that bids were received May 22 for the installation of an electric plant at the school, and contract will be let soon. Estimated cost, $7,500. E. B. Nelson, Danville, is Engr.

NILES, OHIO.—We are officially informed that the city will install a new engine and generator at the municipal light plant. Bert. Halloway is Supt. Light and Water.

CINCINNATI, OHIO.—The CINCINNATI GAS & ELECTRIC CO. has been awarded the franchise to furnish this city with natural gas.

MUNCIE, IND.—The Muncie Gas & Fuel Co. is reported to be planning the construction of an artificial gas plant. W. R. McKeen, of Terre Haute, is interested.

LOOGOOTEE, IND.—We are informed by the PRACTICAL GAS CONSTRUCTION CO., of North Chicago, Ill., that that company has secured a contract to build a gas plant at Loogootee.

PENTWATER, MICH.—We are officially informed that the Pere Marquette Power Co. is preparing to build a dam 400 ft. long and 40 ft. high on the Pere Marquette River, about 25 miles from Pentwater. A powerhouse will be erected and equipped to develop 3,000 HP. J. N. Cotton, Hart, Mich., is Secy.

CHICAGO, ILL.—Contract for switchboards for the new county court-house has been awarded to the WESTERN ELECTRIC CO., at $11,664.

JOLIET, ILL.—Another $2,000,000 water-power plant, capable of developing 20,000 HP., is to be constructed by the drainage board south of Joliet, according to plans now being worked out by R. R. McCormick, Pres. of the Board. The site of the proposed plant is near what is known as South St., three miles southwest of Joliet. A 20-ft. head can be maintained at this point with the maximum flow in the drainage canal as contemplated by the law creating the district, 600,000 cu. ft. per minute.

WEBSTER CITY, IOWA.—It is reported that Brown & Wortham have been granted a franchise and will build and operate a gas plant.

MINNEAPOLIS, MINN.—Bids are asked until May 25, by the City Council, for lighting the city streets.

BELLEVILLE, KANS.—We are officially informed that W. A. FULLER, of St. Louis, Mo., has been awarded the contract for building an electric light plant for the city, at $18,995.

HARVARD, NEBR.—The PRACTICAL GAS CONSTRUCTION CO., of Chicago, has been awarded the contract for the construction of a gas plant at Harvard, including 18,000 ft. of street mains and a brick building. J. A. Bower is Secy. and Treas.

LINCOLN, NEBR.—Contract for the construction of a light and power plant at the State University has been awarded to OLSON & LAWRENCE, of Lincoln.

FORT SAM HOUSTON, TEX.—Bids are asked until 11 a. m., June 14, by L. J. Fleming, Constr. Q. M., for light and power for the post.

PASCO, WASH.—Contract for the construction of an electric light and water system has been awarded by the Council to F. E. ELMENDORF, of Spokane. Work will begin in 60 days.

FARMINGTON, UTAH.—Surveyors are at work drawing up plans for installing an electric light and power plant near Farmington, for the Hawkeye Light & Power Co. Water will be diverted from a creek in Farmington canyon and carried to what is known as Bamberger's saw mill. Near this point a power-house will be built. The company will have a 1,400-ft. fall of water, and will generate 1,000 HP.

OWEN SOUND, ONT.—The citizens have voted to expend $45,000 for the extension of the electric light plant, and a like amount to extend the gas plant.

TORONTO, ONT.—Hon. Adam Beck, Chn. of the Hydro-Electric Commission, has introduced a bill into the Ontario Legislature for the supply of cheap power to the municipalities. The power will be generated at Niagara Falls, the present franchises of the existing companies to be expropriated, the same rule to apply to all companies generating electricity by water power, all over the Province of Ontario. The power, according to the Hydro-Electric Commission's experts, will be sold to the distributor for $11 per HP., which solves the question of cheap power for the people.

WINNIPEG, MAN.—The WINNIPEG ELECTRIC STREET RY. CO. has been awarded the contract to supply electric power for city purposes.

PORTAGE LA PRAIRIE, MAN.—The Manitoba Legislature has given the Council of this town power to borrow $50,000 to construct an electric light system. E. Brown is Mayor.

WINNIPEG, MAN.—Plans are being prepared for furnishing cheap electric power for Winnipeg. The plan for the power plant, as given in the general plans submitted by the committee of the three engineers, Col. Ruttan, City Engr. of Winnipeg; Cecil Smith, of Toronto, and John Kennedy, of Montreal, provides for the construction of a 200-ft. concrete dam across the Winnipeg River at Point du Bois, 55 miles from the city, which will raise the head of water to 45 ft. The dam will cause a large strip of territory to be flooded, and water will be stored, sufficient for the generation of 60,000 HP. At a more suitable point, at a short distance to the west of the falls, a 1,500-ft. canal will be built, through which the water will be conveyed to a point below the falls, where it is proposed to locate the power-house. The power will be transmitted to a sub-station in the city on a double system of towers, and a right-of-way 100 ft. in width will be purchased. A tramway will be constructed from the end of the Lac Du Bonnet branch of the Canadian Pacific Ry. to the power plant. The plans and estimates provided for an original plant for the generation of 17,000 HP., which might be constructed in three years. When needed the capacity of this plant can be increased to 34,000 HP. in a few months, as the main part of the original plant would not require any change. Later another increase could be made to provide 50,000 HP., as new manufacturing industries locating in the city may require. The cost of the plant of 17,000 HP. will be slightly less than $3,000,000.

CALGARY, ALBERTA.—The City Council of Calgary has authorized the expenditure of $30,000 to double the capacity of the municipal lighting plant.

STRATHCONA, ALBERTA.—This town is in the market for poles, wire, crossarms, transformers, arc lamps and regulators. A. J. McLean is Town Engr.

BRIDGES.

The names of parties awarded contracts are printed in capital letters.

TAUNTON, MASS.—MAGEE & MACOMBER have been awarded contract to build bridge over Three Mile River, and will start work immediately.

FALL RIVER, MASS.—It is reported that the Board of Aldermen is considering construction of a concrete arch bridge over the tracks of the Old Colony R. R., to connect two portions of South Park. Estimated cost, $15,000.

WATERTOWN, MASS.—The contract for building temporary bridge at Galen St. has been awarded to A. B. MURDOUGH, at $4,438. W. F. Learned is Town Engr.

WESTON, MASS.—The Board of Aldermen has certified vote of $8,000 for steel bridge over the Charles River, at Concord St., and have referred the matter to the Committee of Public Works.

NEW YORK, N. Y.—Bids are asked until 2 p. m., May 24, by James W. Stevenson, Comr. of Bridges, for erection of the Madison Ave. temporary bridge over the Harlem River; also for bridge over Dutch Kills, Boro. of Queens.

ALBANY, N. Y.—It is expected that about 22 railroad bridges will be built over the new barge canal, costing from $80,000 to $200,000 each.

NEW YORK, N. Y.—The Board of Estimate and Apportionment has authorized an issue of $2,000,000 in corporate stock, to cover the cost of constructing a memorial bridge at Spuyten Duyvil. The total cost of the bridge will be about $3,000,000.

BATAVIA, N. Y.—Contract for building bridge over Tonawanda Creek has been awarded, by Commissioners of Highways, to ROCHESTER BRIDGE & CONSTRUCTION CO., at $6,590. Bids were opened May 19.

WELDON, N. C.—The U. S. Government has granted authority for a bridge company to build a bridge over Roanoke River. The bridge will be constructed about one mile below Weldon, and, the piers being already built, the estimated cost of the bridge will not exceed $12,000.

MAUCH CHUNK, PA.—Bids are asked until June 4 by the Board of County Commissioners, D. Oliver Straup, Chn., for erecting a steel bridge across Hickory Run Creek in Kidder Township.

CAMBRIDGE SPRINGS, PA.—It is reported that YOUNG & BROWN, of Corry, Pa., have secured contract for constructing a bridge over French Creek, at $21,245.

HARRISBURG, PA.—Bids are asked until May 28 by the State Highway Department for construction of reinforced concrete bridge over Coon Island Creek at Vienna Station. Nelson R. McNeal, Claysville, Pa., is Supt.

BALTIMORE, MD.—The Washington, Baltimore & Annapolis Electric Ry. Co. has let contract for river bridges, for its line to INTER-STATE ENGINEERING CO., and for bridges over country roads to ARNOLD & WELLS. Both firms mentioned are of Cleveland, Ohio.

LOUISA, VA.—The contract for the new iron bridge to connect Orange and Louisa Counties at Ellis' Mills, has been awarded to the VIRGINIA BRIDGE & IRON CO., of Roanoke, Va.

ELIZABETH CITY, N. C.—The Norfolk & Southern R. R. is planning a 5½-mile steel bridge across Albemarle Sound with a middle span high enough to allow vessels to pass beneath it. The plans have gone forward to the War Department for approval. M. K. King, Norfolk, Va., is Gen. Mgr. J. A. Barron is Superv. of Bridges, at Berkley, Va.

CARROLLTON, GA.—Bids are asked until noon, June 5, by J. H. Barron, Ordinary of Carroll County, for constructing sub- and superstructure of steel highway bridge over Tallapoosa River, 4½ miles from Carrollton, at Simonton's Mill.

INDIANOLA, MISS.—The supervisors have awarded contract to build a steel drawbridge across the Sunflower River, at Boyer's Mill, to the SOUTHERN BRIDGE CO., of Birmingham, Ala., at $25,400. The bridge is to be completed Jan. 1 next.

LELAND, LA.—Bids are asked until July 1 by J. C. Hardin, Clk. of Police Jury, for construction of four steel bridges.

KNOXVILLE, TENN.—Plans have been made by W. C. Crozer, City Engr., for three bridges over First Creek. One will be of concrete reinforced with steel, and the others will be steel girders.

CLARKSVILLE, TENN.—Bill has been passed authorizing Montgomery County to erect a bridge across Cumberland River in or near Clarksville.

BERRY, KY.—The Harrison Fiscal Court has ordered that a bridge 258 ft. long and 14 ft. wide be built across South Licking River. L. W. Swann is Comr.

ZANESVILLE, OHIO.—The County Auditor has given notice of the intention to build a highway bridge over Jonathan Creek. L. E. Breisford is County Audr.

TOLEDO, OHIO.—A bridge of steel and concrete is to be built at Cherry St., to cost $695,000. Brand Whitlock, Mayor; R. G. Bacon, Audr.

FREDERICKTOWN, OHIO.—The County Commissioners have decided to erect a 65-ft. bridge on Taylor St., and a 50-ft. bridge on Grant St. Both bridges will be of cement.

COLUMBUS, OHIO.—The contract for the superstructure of the Reed Ave. viaduct has been awarded by the County Commissioners to McCLINTECK & MARSHALL, of Pittsburg. The Norfolk & Western Ry. will have tracks over the bridge. Henry C. Maetzel is City Engr.

BELPRE, OHIO.—The Parkersburg & Ohio Bridge Co. has been incorporated under the laws of West Virginia. It is stated that the object of the company is to erect a suspension bridge over the Ohio River between Belpre and Parkersburg.

SYDNEY, OHIO.—The Shelby County Commissioners will sell $40,000 of bonds for bridge purposes, and six new bridges will be built.

COLUMBUS, OHIO.—Bids are asked until June 4 by the Board of County Commissioners for furnishing material and constructing the approaches and roadway, sidewalks and column bracing encasing construction on the Reed Ave. viaduct, over the tracks of P., C., C. & St. L., B. & O. and N. & W. Rys. in Marion Township. L. E. Jones is County Audr.

AKRON, OHIO.—The Northern Ohio Traction & Light Co. has agreed to construct a bridge just west of Barbertown on its new line to Wadsworth.

LE SOURDSVILLE, OHIO.—Bids are asked until noon, June 12, by Charles E. Perkins, Ch. Engr. Pub. Wks., for constructing two aqueducts at Le Sourdsville.

SPRINGFIELD, OHIO.—We are officially advised that the CANTON BRIDGE CO., Canton, Ohio, have secured contract to build steel bridge near Osborn, at $7,339.

GOSHEN, IND.—The County Surveyor has been instructed to prepare plans for bridge to replace the bridge at present on the line between Concord and Washington townships.

NEWCASTLE, IND.—Bids are asked, until 10 a. m., June 4, by the Henry County Commissioners, for erection of certain bridges and culverts in this county. John M. Bundy is County Engr.

INDIANAPOLIS, IND.—C. C. KING & SON, of Montezuma, Ind., have been awarded a contract to build a reinforced bridge at the Harrison Army Post. Cost, $11,750.

SOUTH BEND, IND.—Bids are asked until 11 a. m., June 12, for constructing two Melan arch bridges to cost about $90,000 and $85,000, respectively.

OKMULGEE, IND. T.—The Chamber of Commerce will construct a steel bridge across the Canadian River. A. J. BRANSON, of Ennis, Tex., has contract.

DECATUR, IND.—Bids are asked until June 4 by the County Auditor for building six steel bridges.

STIRLING, ILL.—The City Council has passed resolution to have the First Ave. bridge raised above the height of flood water. Estimated cost, $6,000.

MILWAUKEE, WIS.—We are officially informed that the WISCONSIN BRIDGE & IRON CO., Milwaukee, has secured contract for building the Sixth St. viaduct. C. F. Loweth is Engr. and Supt.

IOLA, WIS.—Bids are asked until June 1 by the Village Clerk for constructing a stone arch bridge across South Channel, and rebuilding the steel bridge across the North Channel, at Wupf's Mill, on Main St.

COLFAX, WIS.—The contract has been let to BURNHAM & IVES, of Bloomington, for construction of a new bridge over the Mackinaw River, on the road south from Colfax, at $3,970.

SIOUX CITY, IOWA.—Plans have been completed for construction of a suspension bridge over Floyd River. Bids will be asked within one month.

ALBERT LEA, MINN.—A resolution was adopted by Council providing for advertising for bids to build steel bridge and steel concrete bridge.

HOLTON, KANS.—Bids are asked until 1 p. m., June 5, by N. P. McConnell, County Clk., for building three steel bridges.

ATCHISON, KANS.—Bids are asked until June 6 by the County Commissioners for erection of two combination bridges. One is to be built near Cummings and one near Lancaster.

CASTLEWOOD, S. DAK.—We are officially informed that CLINTON BRIDGE & IRON WORKS have contract for building seven steel bridges at $6,249. F. A. Trumm is Deputy Audr.

BELLE FOURCHE, S. DAK.—We are officially advised that the lowest bid received on May 15 by the U. S. Reclamation Service, Belle Fourche, for five steel highway bridges, was that of the Canton Bridge Co., Omaha, Nebr., at $5,865. R. F. Walter is Engr.-in-Charge.

CARRINGTON, N. DAK.—Bids are asked until 2 p. m., May 26, by the Commissioners of Foster Co., for constructing two steel bridges. C. M. Porter is County Audr.

FARGO, N. DAK.—Bids are asked until noon, June 6, by Arthur G. Lewis, County Audr., for constructing eight bridges of various sizes.

TOWNSEND, MONT.—The Senate has passed a bill authorizing the Chicago, Milwaukee & St. Paul Ry. Co. to construct a bridge over the Missouri River in Broadwater and Gallatin counties.

GALLATIN, MO.—Bids are asked until noon, June 2, for two bridges to cross the Grand River. Will Dowell is Bridge Comr. of Davis County.

MEMPHIS, MO.—Bids are asked until May 30, by C. C. Critz, County Comr., for construction of the Allen bridge. The bridge will have a 60-ft. span and 30-ft. approach. Bids are also asked until June 1 for erection of Broune bridge, with 30-ft. span.

PINE BLUFF, ARK.—Judge E. J. Kerwin will soon advertise for seven first-class bridges to be built in Jefferson County.

HOUSTON, TEX.—A bridge will be constructed across Virginia Point to Island of Galveston by the Galveston Toll Bridge & Causeway Co., recently incorporated with a capital of $50,000, by C. T. Holt, F. L. Dana and others.

OAKVILLE, TEX.—We are officially advised that on May 15 the MIDLAND BRIDGE CO., of Kansas City, secured contract to build bridge at Miller's Ferry, over Nueces River, at $4,930. The contract for constructing approaches has not yet been let. S. A. Oliver, of Houston, Tex., is Des. Engr.

PUEBLO, COL.—The Canon City, Florence & Interurban Electric Ry. Co. has awarded contract to the BULLEN BRIDGE CO., of Pueblo, for constructing five steel bridges on the Royal Gorge division of its road.

WENATCHEE, WASH.—L. J. BAILEY & CO., of this town, have contract for erecting a bridge across the Wenatchee River at Leavenworth.

The County Commissioners have granted the petition of the citizens who asked for a bridge at Monitor, and will soon advertise for a structure to cost about $6,000.

GOLDENDALE, WASH.—Bids are asked until 2 p. m., May 26, by A. M. McLeod, County Audr., for a 60-ft. and two 28-ft. trestle bridges across Swale Creek.

BREMBERTON, WASH.—Bids are asked until May 26 by the Board of Commissioners, Kitsap County, for bridges 408, 802, 171 and 145 ft. long; also four others, length not specified.

WALLA WALLA, WASH.—P. S. EASTERDAY & CO., of Salt Lake City, Utah, have been awarded contract for building the Cummings and Raymond bridges across the Touchet River at $3,400 and $2,300.

PORTLAND, ORE.—We are officially informed that the bridge to be built on Grand Ave., crossing Sullivan Gulch, noted in issue of May 10, will be 350 ft. long, and will have a 45-ft. roadway, as well as two 12-ft. sidewalks. The structure will be of steel on concrete piers, and, it is estimated, will cost $52,000. Sullivan Gulch is 65 ft. deep. D. W. Taylor is City Engr.

FRESNO, CAL.—We are officially advised that the plans and specifications called for May 12, for reinforced concrete bridge at Skaggo Crossing, San Joaquin River, have been rejected. The matter is being continued indefinitely. A. D. Ewing is Clk. Bd. Supervs.

BUILDINGS.

The names of parties awarded contracts are printed in capital letters.

WORCESTER, MASS.—THE CENTRAL BUILDING CO., of Worcester, Mass., has been awarded the contract for the new laboratory building for the electrical engineering department of the Worcester Polytechnic Institute. Cost, $125,000. Peabody & Stearns, 53 State St., Boston, are Archs.

COHOES, N. Y.—We are officially informed that the plans of Fuller & Pitcher, Archs., 95 State St., Albany, N. Y., have been adopted for the new bank building on Remsen and Ontario Sts. The new building will be three stories, stone and brick. Plans will go out for figures at once.

NEW YORK, N. Y.—The Board of Estimate has authorized the issuance of $8,000,000 of bonds for the Board of Education, for the purchase of sites and construction of new school buildings. Of this amount $1,500,000 will have to be approved by the Board of Aldermen.

Barnard College has received $150,000 additional to its dormitory fund, which will allow the building of the first of the series planned for the Milbank Quadrangle on Morningside Heights. The cost will be about $250,000. Chas. A. Rich, Arch., 320 Fifth Ave., New York, has prepared plans.

The Knickerbocker Trust Co., 66 Broadway, New York, has purchased property on Broadway and Exchange Place, New York, where it is reported that a 20-story office building will be erected. Charles T. Barney, 71 Broadway, is interested.

NEW YORK, N. Y.—Plans have been completed for a two-story and basement synagogue at 116th St. and Fifth Ave., New York, for the Ohab Ledek congregation, of which Leopold Herman is Pres. The cost will be about $50,000. Hedman & Schoen, 302 Broadway, New York, are Archs.

Bids are asked by James Knox Taylor, Supervising Arch., Washington, D. C., until 3 p. m., June 12, for installing hydraulic plunger freight elevator in the United States Post Office and Court House Bldg., New York.

NEW YORK, N. Y.—The plans of Carrere & Hastings, Archs., 28 East 41st St., New York, have been accepted for the new theater for the uplifting of dramatic art, between 62nd and 63rd Sts., Central Park West and Broadway. It will be built of stone at a cost of nearly $2,000,000.

R. H. MacDonald & Co., 5 West 31st St., New York, have purchased the property at 12 West 31st St., New York, where, it is reported, a 12-story office building will be erected.

NEW YORK, N. Y.—Bids are asked by C. B. J. Snyder, Supt. Schools, until 11 a. m., June 4, for alterations, repairs, etc., for Public Schools 2, 29, 40, 46, 58, 77, 80, 90, 97, 102 Annex, 105, 120, 124, 130 Annex, 131, 139, Borough of Brooklyn.

NEW YORK, N. Y.—Bids are asked by C. B. J. Snyder, Supt. Schools, until 11 a. m., June 4, for installing electric equipment in addition to and alterations in Public School 69 on West 55th St., Manhattan. Bids are also asked for alteration, repairs, etc., for Public Schools 5, 39, 46, 68, 89, 119, 186, Borough of Manhattan.

NEW YORK, N. Y.—Bids are asked by C. B. J. Snyder, Supt. Schools, until 11 a. m., June 4, for the general construction, etc., Items 1 and 2, of buildings for the Parental School on the westerly side of road between Flushing and Jamaica, Borough of Queens.

ALBANY, N. Y.—We are officially informed that plans have been prepared for the construction of a 5-story fireproof building for the James B. Lyon Printing Co., on Market Square, to extend from Beaver St. to Hudson Ave.

MIDDLETOWN, N. Y.—Bids are asked by T. E. McGarr, Secy. State Board Lunacy, until 3 p. m., May 29, for construction, heating, plumbing and electric wiring of laundry enlargement, and rewiring and fixtures of old buildings, at the Middletown State Homeopathic Hospital. Geo. L. Heins is State Arch., Capitol, Albany, N. Y.

NEW CASTLE, PA.—Plans are completed for a three-story High School building to be built here. The cost will be about $100,000. W. G. Eckles, Lawrence Trust Bldg., New Castle, is Arch.

HARRISBURG, PA.—Bids were opened and contract awarded for the erection at Spring City of a State Institution for the Feeble-minded and Epileptic, in the Executive Department, by the commission appointed by Governor Pennypacker. JOHN R. WIGGINS & CO., of Philadelphia, were the lowest of six bidders, they having bid $364,400 for the buildings trimmed with granite and limestone, $370,000 for Pennsylvania marble trimmings, and $364,400 for brownstone trimmings.

SWARTHMORE, PA.—Bids have been received for the construction of a new library building for Swarthmore College, at Swarthmore, Pa. It will be stone, two stories high, with a four-story tower and clock. It will cover an area of 80 × 120 ft., costing about $100,000. E. L. Tilton, 32 Broadway, New York, is Arch.

SOUTH EASTON, PA.—Plans for a coaling station to be erected by the Lehigh Valley Railroad Co., at South Easton, are on file at the New York office of Engineering News.

PHILADELPHIA, PA.—A 4-story parochial school for St. Monica's R. C. Church, plans for which were prepared by E. F. Durang, Arch., 1200 Chestnut St., will be erected at 17th and Ritner Sts. at a cost of about $50,000.

PITTSBURG, PA.—William Albert Swasey, Arch., representing the S. & L. Shubert Company, Incorporated, New York, N. Y., has completed drawings of the $350,000 theatre which F. F. Nicla and Wilbur Shenk, Farmers' Bank Bldg., Pittsburg, propose to build for the Shuberts at Duquesne Way and Seventh St. Contracts will be awarded about June 1. The building will be of classic Italian architecture, and will seat 2,000 people. The theatre proper will be 80 × 28 ft., twelve boxes, and studios for photographers.

DELAWARE CITY, DEL.—Bids are asked by Capt. Louis F. Gerrard, Q. M., until 10 a. m., June 14, for constructing, plumbing, heating and electric wiring one brick post exchange and gymnasium at Fort Du Pont, Del. (Advertised Engineering News.)

BALTIMORE, MD.—Bids are asked by H. F. Hooper, City Register, until 11 a. m., May 29, for erecting a building on New Liberty Road and Main Ave., Baltimore, for the use of the Board of School Commissioners.

BALTIMORE, MD.—The Maryland University Hospital, Lombard and Hanover Sts., will erect a 4-story addition at a cost of $175,000. Sunderland Brothers, Archs., Washington Savings Bank Bldg., Washington, D. C., are preparing plans.

WASHINGTON, D. C.—Bids were opened May 22 at the office of Elliott Wood, Supt. of the U. S. Capitol Buildings and Grounds, Washington, for fireproof floor construction, House of Representatives office building, Washington, D. C. Bid "A" is for reinforced basement, terra cotta for rest of building, "B," for reinforced concrete basement, "C," for terra cotta construction, floors 1, 2 and 3 and attic, as follows: G. S. Holmes, New York, "A," $91,272; unit prices: 18 cts. per sq. ft. floor arches; 10 cts. per sq. ft. ceiling. O. W. Ketcham, Philadelphia, "C," $75,122. Roebling Construction Co., 1416 Land Title Bldg., Philadelphia, "A," $64,000; "B," $11,662. Armored Concrete Construction Co., Baltimore, "B," $18,060; 18.3 cts. per sq. ft. basement reinforced concrete; 29.4 cts. other floors. Brennan Construction Co., Washington, "A," $81,485; alternates, $85,310; $98,420; $86,-215. National Fireproofing Co., Colorado Bldg., Washington, "A," $94,900; "B," $15,-000; "C," $79,900; reinforced concrete, 23.5 cts. per sq. ft.; terra cotta, 32 cts. R. J. Beall Construction Co., Washington, "A," $92,450; concrete, 18 cts. per sq. ft.; floor construction concrete, 32 cts.; "B," $12,500; 18 cts. per sq. ft.; "C," $80,000; 32 cts. per sq. ft.

NORFOLK, VA.—Bids are asked by the Jamestown Exposition Co., until 3.30 p. m., May 26, for construction of the History and Historic Art buildings.

CHARLESTON, S. C.—We are officially informed that the Bureau of Yards and Docks, Navy Department, will soon invite proposals for constructing a central power station building at the new Navy Yard, Charleston, S. C. The building will be of fireproof steel and brick construction, 197 × 115 ft., with pile and concrete foundations, selected hard brick walls, concrete floors, and plastic slate roof. Plumbing and electric wiring will be included, but no heating system or elevator. A radial brick chimney, 100 ft. in height, will be required. The contract will allow eight months to do the work.

BRUNSWICK, GA.—Bids are asked until noon, June 26, by the Commissioners of Glynn County, Ga., for the erection of a Court-house at Brunswick. J. J. Lott is Chn., and A. O. Townsend, Clk. (Advertised Engineering News.)

ATLANTA, GA.—The Bijou Theater Co., Jake Wells, Richmond, Va., Pres., has secured site and is having plans prepared by Fuller Claflin, Arch., 1440 Broadway, New York, N. Y., for the erection of theater; to be 100 × 127 ft., with a seating capacity of 1,800, at a cost of $90,000.

NEW ORLEANS, LA.—The Belt Railroad Commission is reported to be negotiating with the Texas & Pacific Ry. to build a union passenger station. The railroad company proposes at any rate to erect a station for its passenger business. B. S. Wathen, Dallas, Tex., is Ch. Engr.

CHATTANOOGA, TENN.—The Chattanooga Hotel Co. has been organized with $100,000 capital stock by J. B. Pound, W. B. Mitchell and associates, to operate hotel previously reported to be erected by Stone Fort Land Co. It will be eight stories; fireproof construction; modern plumbing; electric lights; cold storage and ice plant; two passenger and one or more freight elevators.

The plans of Donn Barber, 24 East 23rd St., New York, have been selected for the $500,000 passenger station for the Southern Railway Co. at this place.

NASHVILLE, TENN.—It is reported that the American Baptist Home Missionary Society has decided to locate Roger Williams University in Nashville. A site has been secured and buildings costing $100,000 are planned.

CLEVELAND, OHIO.—Plans are in progress for a garage for the White Sewing Machine Co., on Rockwell Ave., between East Sixth and Ninth Sts., at a cost of $75,000.

LIMA, O.—Bids are asked by the Board of Education, until June 4, for the erection of school building between Pierce and McDonald Sts. Packard & Matthews, Cincinnati Bldg., Lima, are Archs.

HAMILTON, O.—Bids are asked by the Board of Education, until May 31, for the erection of a 7-room addition to the Second Ward school near Central Ave. Geo. Borkman, Second National Bank Bldg., Hamilton, is Arch.

MAGNETIC SPRING, OHIO.—It is stated that Walter D. Guilbert, of Caldwell, Ohio, is interested in the erection of an $80,000 sanitarium here.

EVANSVILLE, IND.—It is reported that a 10-story office building will be built by the Lockyear Building Co., on Fifth and Sycamore Sts., Evansville, at a cost of $200,000. E. Clarke Johnson, Evansville, is Arch.

INDIANAPOLIS, IND.—Extensive repairs will be made on the City Hospital at this place. About $100,000 will be expended on remodeling and rebuilding.

Tentative plans have been prepared by Rubush & Hunter, Archs., Fitzgerald Bldg., Indianapolis, for a 14-story office building for the Grand Lodge, I. O. O. F., costing about $400,000.

CHICAGO, ILL.—A proposition for the construction of a new City Hall by private funds and enterprise has been submitted to the Mayor by Ferdinand W. Peck and W. N. Horner, the latter being an attorney at 164 Dearborn St. The plan is to erect a $4,000,-000 building (the designs being subject to the approval of the city authorities), for which the city would pay in a term of 40 years.

It is reported that Joseph Beifeld, Randolph and Clark Sts., Chicago, will erect a hotel on La Salle and Madison Sts. The structure will be 14 stories, 160 × 180 ft., costing about $2,000,000.

It is stated that D. H. Perkins, Arch. for the Board of Education, Tribune Bldg., Dearborn and Madison Sts., is preparing plans for the James H. Bowen High School building, to be built on 89th St., between Marquette and Manistee Aves., South Chicago. It will be three stories, 293 × 314 ft., of fireproof construction, stone and terra cotta, steam heat, electric light, contain an assembly hall to seat 1,200 on the ground floor, 18 large class rooms, laboratories, a two-story gymnasium, 48 × 112 ft., a large lunch room with a seating capacity of 750 on the top floor, fireproof vault in connection with the principal's office, probably bowling alleys in the basement, and cost approximately $400,000.

It is stated that the Board of Education, Tribune Bldg., Chicago, Ill., contemplates the erection of the following school buildings: Parkman school, 26 rooms and assembly hall, to cost $210,000; school at Iowa St. and North Campbell Ave., 14 rooms, to cost $160,000; Mark Sheridan school, four rooms, to cost $30,000; Healy school, 24 rooms, $200,000; Beaubien school, 12 rooms, $130,000; Washburne school, 21 rooms, $175,000; Hiram H. Belding school, six rooms and assembly hall, $75,000; Joseph Warren school, 12 rooms and assembly hall, $140,000; James H. Bowen High School, South Chicago, $400,000; Louis Nettlehorst school, nine rooms, $150,-000; Patrick Henry school, 12 rooms and assembly hall, $125,000; Stephen Hayt, $185,-000, and Copernicus school, six rooms, $35,000.

CHICAGO, ILL.—C. A. Eckstrom, Arch., 131 La Salle St., Chicago, is preparing plans for a building to contain stores, silversmiths' shops and studios, to be built on Michigan Ave. and Harrison St., for Mrs. Julia F. Heyworth, represented by Oliver & Co., 108 Dearborn St. It will be fireproof, seven stories, 77 × 172 ft., with foundation and walls substantial enough to carry additional stories, and cost about $250,000.

AMES, IOWA.—Plans for the new $200,000 agricultural building have been completed. It will be 250 ft. in length, and, as planned, will accommodate class rooms and laboratories, but the auditorium, with a seating capacity of 1,200, will be separate.

DES MOINES, IOWA.—Bids are asked by H. W. Rowell, Q. M., Fort Des Moines, Iowa, until 2 p. m., June 2, for constructing, plumbing, steam heating and electric wiring, at Fort Des Moines, Iowa. One set field officers' quarters, 1 double set lieutenants' quarters, 1 double set N. C. staff officers' quarters, 1 stable for draft animals, 1 quartermasters' workshop, 1 civilian employes' quarters, all to be brick buildings, and 1 band stand, frame.

ST. PAUL, MINN.—A 3-story school, 44 × 60 ft., to cost about $60,000, will probably be erected by the Backus School; Mrs. C. H. Backus is Pres. Thori, Alban & Fisher, Chamber of Commerce, St. Paul, are Archs.

MINNEAPOLIS, MINN.—It is stated that the County Commissioners of Hennepin County are preparing to erect a new county jail. Building to be fireproof, and equipped with all sanitary devices. Cost will be about $100,000. No architect chosen.

WINONA, MINN.—We are officially informed that the following contracts were awarded for constructing the city prison here: SEIDLITZ & WERNER, the general contract; J. L. MAYER, contract for plumbing, and GARDINER & MATEJKA, contract for placing cells. J. P. Coleman is City Engr.

INDEPENDENCE, KANS.—It is reported that a new opera house will be built here at a cost of about $50,000. A. C. Stitch is said to be interested.

COLUMBIA, MO.—Bids are asked by C. F. Karnopp, Secy. Y. M. C. A., until June 10, for the construction of an association building, 90 × 125 ft., to cost about $50,000.

ROLLA, MO.—Bids are asked by the Executive Committee, at the Southern Hotel, St. Louis, Mo., until 2 p. m., May 25, for the construction of an ore dressing laboratory at the School of Mines, Rolla, Mo.

NEVADA, MO.—Bids are asked by the Board of Education until noon, June 5, for the construction of the new $50,000 High School building at Nevada, Mo. Garslang & Rea, 204 Grove Bldg., Joplin, Mo., are Archs.

COLORADO SPRINGS, COLO.—Dr. A. H. Stockholm, of Delta, Colo., is interested in the erection of the proposed Presbyterian College at this place. Cost, about $500,000.

GRAND JUNCTION, COLO.—Bids are asked by C. F. Larrabee, Acting Comr. of Indian Affairs, Washington, D. C., until 2 p. m., May 31, for furnishing and delivering the necessary materials and labor required to construct and complete a mess hall, an employees' quarters, a workshop and a superintendent's cottage, all of brick, with plumbing, steam heat and electric light wiring; a laundry and a dairy barn, both of brick, with plumbing and electric light wiring; for heating and ventilating three large buildings, and for the improvements to the present water system at the Grand Junction School, Colo.

SAN FRANCISCO, CAL.—Bids were opened May 22, at the office of James Knox Taylor, Supervising Architect of the Treasury, Washington, for installing a vacuum cleaning system in the U. S. Post Office Building at San Francisco. Bids were as follows: Sanitary Devices Mfg. Co., 11 East 24th St., New York, $5,450; time, 90 days. Vacuum Cleaner Co., 427 Fifth Ave., New York, $11,000; time, 5 months.

WATER SUPPLY—IRRIGATION.

The names of parties awarded contracts are printed in capital letters.

WINTHROP, MASS.—Bids are asked until June 4 by Capt. Geo. L. Goodale, Q. M., Boston, for laying mains and remodeling the water distributing system at Fort Banks.

MEDFORD, MASS.—It is reported that contract for furnishing 150 tons c.-i. pipe has been awarded to the DONALDSON IRON CO., of Emaus, Pa., at $4,650. Fred. L. Cushing is Water Register.

BOSTON, MASS.—At the opening of bids for furnishing c.-i. water pipe, on May 15, the only bidder was the U. S. Cast Iron Pipe & Foundry Co., Philadelphia, Pa., whose bid was $11,879. William Jackson is City Engr.; Frederic C. Stearns is Ch. Engr. Metropolitan Water and Sewerage Bd.

MIDDLETOWN, CONN.—It is proposed to expend $12,000 for new reservoir at this town.

NEWTOWN, CONN.—It is reported that contracts for constructing water-works have been awarded as follows: Reservoir and pipe laying, LEONARD L. BECKWITH, Ridgefield, Conn.; pipe valves and hydrants, R. D. WOOD & CO., Philadelphia, Pa.; engine and pumps, W. B. GLOVER, Newtown; cement, WARNER MILLER CO., New Haven. T. H. McKenzie, of Southington, is Engr.

NEW YORK, N. Y.—The State Water Commission has decided formally to give its consent to the application of the city of New York for a new and additional water supply which, when the work is completed in the Catskill Mountains, will give the city about 500,000,000 gallons more a day. The cost of the improvement is estimated at $160,-000,000. It is reported that work on necessary dams and reservoirs will be commenced at once.

PITTSFORD, N. Y.—The Rochester & Lake Ontario Water Co., of Rochester, is reported to have decided to extend its system to Pittsford. It is also considering an extension to Irondequoit.

YONKERS, N. Y.—Bids are a[illegible] until 8 p. m., June 14, by the Board of [illegible]er Commissioners, for furnishing c.-i. [illegible] of various sizes. A. W. Kingsbury is [illegible] (Advertised Engineering News.)

Bids are asked until 8 p. m., J[illegible] by the Board of Water Commissioners [illegible] furnishing 300 ⅝-in. water meters. A[illegible] Kingsbury is Clk. (Advertised Engine[illegible] News.)

LOCKPORT, N. Y.—It is repo[illegible] that the proposed new water supply syst[illegible] will cost about $500,000. Bids for constr[illegible] have not yet been called for. Julius [illegible] Freshsee is City Engr.

COHOES, N. Y.—At a recent [illegible]ing of the Board of Water Commission[illegible] resolution was passed to install a filt[illegible] plant. Bids will be asked for shortly. [illegible]les H. Van Auken is City Engr.

NEWARK, N. J.—It is report[illegible] that bids are asked until May 31, by t[illegible] Board of Street and Water Commissioners [illegible] various quantities of cast-iron pipe and [illegible]l castings. G. Sangenbacher is Engr. [illegible] Supt.

ROCKWOOD, PA.—It is rep[illegible] that Rockwood is to have a new wa[illegible] system, with a dam having an 80-ft. [illegible] submerging 70 acres and impoundin[illegible] [illegible]00,000 gallons of water at a height of [illegible] ft. above the town. The pressure will be [illegible] lbs. to the sq. in.

LANCASTER, PA.—We are officially advised that bids probably will be asked for constructing dam about June 1. F. H. Shaw is Engr. Water and Sewer C[illegible].

LEESBURG, VA.—Bids are as[illegible] until 3.30 p. m., June 19, by R. H. [illegible]bs for installing water-works system. J. [illegible] Bitzer is Mayor; Charles S. York, 1526 E[illegible] Biddle St., Baltimore, Md., is Consult. E[illegible] (Advertised, Engineering News.)

BUENA VISTA, GA.—J. B. M[illegible]RARY, Empire Bldg., Atlanta, has secured contract for constructing water-works at $1[illegible]0. Arthur Pew, Temple Court, Atlanta, [illegible] Engr.

BATON ROUGE, LA.—The city contemplates the construction of a $100,000 water-works plant. R. Stewart is City E[illegible].

FOSTORIA, OHIO.—We are officially informed that the complete bids received on May 14 by the Board of Public Service for filter plant at Fostoria were: J. H. JONES & CO., Fostoria, $10,019 (contract awarded); C. R. Lewis & J. J. Rumsey, Fostoria, $11,057; Ph'g. Filter Mfg. Co., $16,724; E. H. Fauber & S. Renick, Findlay, $18,671. Riggs & Sherman Co., Toledo, are Engrs.

CINCINNATI, OHIO.—Bids are asked until noon, May 26, by the Board of Public Service for drilling two 10-in. wells, each well to have an average capacity of 15,000 gallons per hour, at Norwood.

L. EID CONCRETE STEEL CO., of Cincinnati, has contract for building filter plant, reservoir, etc., at $273,000.

Bids are asked until June 12 by the Board of Commissioners of Water-Works for laying about 4,750 lin. ft. 20 and 30-in. c.-i. pipe, special castings and valves in Queen City Ave.; also about 4,300 lin. ft. 24-in. c.-i. pipe in Hewitt and Woodburn Aves.

NEWARK, OHIO.—Surveys are being made by the Board of Public Service with a view of establishing a site for the proposed new reservoir.

FREMONT, OHIO.—The city has voted $35,000 for water-works improvements. The Riggs-Sherman Co., Toledo, Ohio, are Engrs.

AKRON, OHIO.—We are officially informed that the Akron Water-Works Co. contemplates installing either a steel or a reinforced concrete stand-pipe in connection with its plant.

WEST TERRE HAUTE, IND.—A franchise has been granted to the West Terre Haute Water Works Co. to furnish water to this city.

SOUTH BEND, IND.—The Board of Public Works has ordered the extension of water mains in Howard, Quimby, Jackson and Allen Sts. and South Bend Ave. Alonzo J. Hammond is City Engr.

BOYNE, MICH.—Boyne has voted $30,000 to improve the present water-works system. The plan is to build a large reservoir in the hills just at the south side of the village, which will give a gravity pressure of 320 ft.

ST. CLAIR HEIGHTS, MICH.—The Detroit City Water Board, John Schroeder, Pres., is reported to have authorized the village of St. Clair Heights to expend $18,000 in extending and enlarging its water mains, which are branches of the Detroit system, the work to be done under supervision of the Detroit Water Board.

SPRING LAKE, MICH.—It is reported that bids are asked until about July 1 for constructing water-works system here. A. L. Holmes, Grand Rapids, is Engr.; Charles M. Kay is City Clk.

WYANDOTTE, MICH.—Bids are asked until 6 p. m., June 6, for 4½ miles of from 4 to 8-in. water mains, hydrants, valves, fittings and pig lead. James G. Pinson is City Clk. (Advertised Engineering News.)

STAUNTON, ILL.—Bids are asked until noon, May 27, by H. A. Fischer, City Clk., for laying water main extensions in Staunton.

TALLULA, ILL.—Bids are asked until 7.30 p. m., June 20, by the Village of Tallula, for constructing water-works system. N. H. Greene is Pres.; Owen Ford, Security Bldg., St. Louis, Mo., is Consult. Engr. (Advertised, Engineering News.)

CENTERVILLE, IOWA.—Contract for the Albia water-works system has been awarded to W. D. HOWELL, of Minneapolis, at $44,300. If a stand-pipe is included the cost will be $5,400 more. The work is to be completed Oct. 1.

CORNING, IOWA.—At a recent meeting of the City Council of Corning a contract for erection of a water tank was awarded to the DES MOINES IRON & BRIDGE CO. The tank will cost $4,440, will hold 80,000 gallons, and will be built of steel.

WINFIELD, KANS.—We are officially informed that contracts for water system in this city have been let as follows: For in-

PROPOSED WORK

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stalling sys... GEORGE E. HOPPER, Arkansas City, at $27,139; for hydrants and valves, BOURBON COPPER & BRASS CO., Cincinnati, Ohio, $2,550; for well, T. C. PAULEY, Winfield, $2,257. The Dimmick Pipe Co., Birmingham, Ala., bid $40,826 for furnishing c.-i. pipe. The bids were asked until May ..., by J. O. Geager, City Clk. Burns & McDonnell, Kansas City, Mo., are Engrs.

CAMPBELL, NEBR.—O. W. RISH, of Norfolk, has contract for installing a water-works system in Campbell.

EDGEMONT, S. DAK.—S. S. Thompson, of Philadelphia, Pa., has recently been awarded a franchise to install a water-works system at Edgemont, S. Dak.

DEVIL'S LAKE, N. DAK.—The Great Northern R. R. Line has purchased 60 acres of land on the shores of the Sweetwater Lake and will build a pumping station.

SHELDON, N. DAK.—It is reported that JAMES COLE, of Lisbon, N. Dak., has secured the contract for constructing water-works, at $5,000.

ARDMORE, IND. T.—The contract for extension of the sewer and water-works systems of this city has been let to the AMERICAN WATER & LIGHT CO., of Kansas City. $70,000 will be expended in extending these systems.

CHICKASHA, IND. T.—The city has voted in favor of issuing $60,000 in bonds for water-works and sewerage. E. E. Colby is City Engr.

FRUITA, COLO.—HANLEY & RITCHIE, of Salt Lake City, Utah, have the sub-contract for laying 32 miles of water pipe for the Fruita, Colo., water-works, from the neighboring mountains.

GRAND JUNCTION, COLO.—See Buildings.

CHELAN, WASH.—The Wapato Irrigation Co. has been organized here with a capital stock of $50,000. Its principal object is the irrigation of a large tract of land lying north of Chelan. The water will be stored in Wapato Lake. Incorporators are Lyman R. Colt, Harry Wentworth, R. P. Harris, Titus Hale and C. E. Rusk.

PALA, CAL.—The OCEANSIDE HARDWARE CO. has been awarded the contract for installing at Pechanga Indian Reservation a water system.

SACRAMENTO, CAL.—A storage reservoir is to be built in Harmony Range for the Southern Pacific Co. W. Hood, San Francisco, is Ch. Engr.

TWIN FALLS, IDAHO.—The Twin Falls Water-Works Co. has secured right-of-way and made surveys for a pipe line which will convey water for domestic purposes from the low line canal.

BOISE, IDAHO.—Joseph Perrault, and associates, will bring water in 24-in. mains from the Perrault ditch to the city for sprinkling purposes. Low pressure service will be installed at a cost of about $100,000. Plant will be put in immediately.

PAGE & BRINTON, of Salt Lake City, have been awarded contract for the Payette Boise Irrigation project, which involves the excavation of 563,000 yds. of material for the balance of the main south side, at $69,750.

INDIAN HEAD, SASK.—Masterson & Fry, of Moose Jaw, are in the market for the purchase of a plant for the construction of a water-works system at this town.

REGINA, SASK.—It is reported that $33,000 will be expended for water-works improvements, $11,000 for sewers, and $160,000 for paving. Angus Smith is City Engr.

FORT WILLIAM, ONT.—Bids are asked until June 7 by the Commissioners, for a portion of the water system at this city. The work includes two earth dams, with intake pipes, 2,000 ft. of 8-in. wood pipe for supply main, 10,000 ft. wood pipe for pressure main, concrete lined reservoir of 800,000 gallons capacity, duplicate 18-in. c.-i. pipe, 350 ft. long, under Kaministiquia River, with valves, specials, etc. A. McNaughton is Secy.; H. S. Hancock is Engr.

OTTAWA, ONT.—The City Council is making application to the Ontario Legislature for authority to expend $100,000 on an extension of the city's water-works.

BRANDON, MAN.—Bids are asked until June 18, by the City of Brandon, for furnishing 150 tons of 6-in. c.-i. pipe and specials and 15 hydrants. W. H. Schillinglaw is City Engr.

CALGARY, ALTA.—The City Council has authorized the laying of seven miles of water mains. Pipes will be procured at once, and work commenced.

SEWERAGE.

The names of parties awarded contracts are printed in capital letters.

MILTON, MASS.—Bids are asked until 2 p. m., June 2, by the Board of Sewer Commissioners, for constructing about 2,850 lin. ft. pipe sewers.

NEW YORK, N. Y.—We are officially advised that bids were received by Louis F. Haffen, Pres. Boro. Bronx, as follows: For constructing sewer and appurtenances (a) in Walton Ave., between East 181st and 184th Sts.; (b) in Featherbed Lane and in Aqueduct Ave.; (c) in Sheridan Ave., East 162d St. and the Grand Boulevard; (d) for extending the present sewer in Belmont Ave., north of Pelham Ave., to the south line of Bronx Park. Thomas T. Murray, 1871 Jerome Ave., (a) $15,133; S. M. De Pasquall, Williamsbridge, N. Y., (a) $16,689, (b) $17,821, (c) $18,178, (d) $9,734; Joseph Bunis, 1909 Amsterdam Ave., (a) $16,985, (b) $17,854, (c) $17,850; Leahy Contract & Construction Co., 1446 Prospect Ave., (a) $17,968; Culgin Pace Construction Co., 787 Tremont Ave., (a) $17,009, (b) $21,122, (c) $18,210, (d) $9,449; J. C. Voorhees, 182d St. and Morris Ave., (a) $17,497, (b) $19,273; Briggs & McLaughlin, 19 East 130th St., (a) $18,150, (b) $21,498, (c) $19,595, (d) $11,647; M. Ungrich, 105 West 131st St., (a) $18,486, (b) $17,696; P. J. Brennan, 759 East 173d St., (a) $18,698, (b) $19,304, (c) $20,074, (d) $10,152; W. T. Murray, 1155 Boston Road, (a) $18,808, (b) $17,710; Joseph W. Stanton, 134 Webster Ave., (b) $16,195, (c) $17,130, (d) $8,704; George M. Dunn, Clay Ave. and 167th St., (b) $17,432 (d) $9,303; Thomas Crimmins Construction Co., College Ave., (b) $20,565; John J. Hart Co., 54 Broad St., (b) $21,644.

Bids are asked until 3 p. m., May 29, by John F. Ahearn, Pres. Boro. Manhattan, for constructing sewers in Grand and West 174th Sts., and in Lexington Ave.

Bids are asked until 11 a. m., May 31, by Louis F. Haffen, Pres. Boro. Bronx, for constructing sewers in East 174th, two sections of 178th St. and two sections of Grand Boulevard and Concourse.

Bids are asked until 11 a. m., May 28, by Joseph Bermel, Pres. Boro. Queens, for one boiler for sewage disposal plant and fixtures at Far Rockaway; also for constructing sewers in the Boulevard and 13th Ave.

OSWEGO, N. Y.—The Commissioner of Works is advertising for bids for constructing sewers in East Seventh St. and in East Ninth St.

NORWICH, N. Y.—C. H. QUEAREAU, of Oxford, has been awarded contract to construct about 1,500 ft. 10-in. sewer and about 14,000 ft. 8-in. sewer, at $14,541.

NIAGARA FALLS, N. Y.—It is proposed to build sewers in this city to cost about $56,000. W. W. Reed, City Engr., has presented estimates and they have been approved by the Board of Public Works.

OLEAN, N. Y.—Bids are asked until 8 p. m., June 1, by Common Council for constructing a 10-in sewer, 635 ft. long, in Reed St., and for 8-in. sewer, 412 ft. long in North Ninth St. E. E. Allen, Supt. of Sts.

SIDNEY, N. Y.—The Board of Sewer Commissioners of Sidney has advertised for bids for construction of a sewer on Main St., 8,000 ft. long.

SUMMIT, N. J.—The Common Council has ordered the city engineer to prepare plans for a sewage pumping station and storage plant on Chatham Road. E. D. Rich is City Engr.

READING, PA.—The Board of Public Works has awarded contract for installing reinforced concrete sewer on Oley St., from Ritter to Schuylkill Aves., and on Schuylkill Ave. to the river, to the HAWMAN CONSTRUCTION CO., at $12,018. Other bids from the same company were: Brick, $12,572; plain concrete, $12,626. Elmer H. Beard is City Engr.

ZALIENOPLE, PA.—Bids are asked until June 4 by F. W. Cunningham, Secy. of Council at Zalienople, for laying new 6-in. sewer there.

WASHINGTON, D. C.—Bids are asked until noon, June 11, by the Commissioners, for constructing sewers. (Advertised Engineering News.)

WASHINGTON, D. C.—The following bids were received on May 14, at the office of the Commissioners of the District of Columbia, for constructing sewers, from (a) James A. Coyle, 2750 14th St., N. W.; (b) R. J. Beall Construction Co., 1217 F St., N. W.; (c) E. G. Gummel, 612 F St., N. W., Washington. Ordinary excavation, (a) $1.25, (b) $1.18, (c) 97 cts.; red brick masonry, (a) $17.50, (b) $15, (c) $15; vitrified brick masonry, (a) $22.50, (b) $18.75, (c) $18; concrete masonry "D," (a) $8.50, (b), $8.33, (c) $7; vitrified brick inverts, per lin. ft., (a) $1.20, (b) 85 cts., (c) $1; 21-in. pipe sewer, per lin. ft., (a) $1.40, (b) $1.25, (c) $1.30; 18-in. pipe sewer, per lin. ft., (a) $1.30, (b), $1.10, (c) $1.20.

RICHMOND, VA.—THOMAS A. BARRY & CO. have been awarded contract for building sewer in this city, at $10,000.

NEW ORLEANS, LA.—We are officially informed that bids received May 8, by the Sewerage and Water Board, F. S. Shields, Secy., for constructing sewers, were as follows: Contract U, Irwin Bros., New Orleans, $139,061; A. L. Patterson & Co., Macon, Ga., $146,061; Talbott Uhl Construction Co., Logansport, Ind., $152,540; R. C. Storrie, New Orleans, $168,894. Contract V, Irwin Bros., $174,331; A. L. Patterson & Co., $188,351; Black & Laird, Ltd., New Orleans, $245,831. Contract W, Irwin Bros., $136,374; Talbott Uhl Construction Co., $149,148; A. L. Patterson, $155,432; M. O'Herron Co., Pittsburg, Pa., $182,470; Black & Laird, Ltd., $196,754. Contract X, A. L. Patterson & Co., $115,971; Talbott Uhl Construction Co., $119,798; Irwin Bros., $121,306. W. J. Hardee is City Engr.; George W. Earl is Supt. W.-Wks. and Sewers.

KNOXVILLE, TENN.—The property owners on Eleanor St. and on Lovenia Ave. will build a sanitary sewer in that section of the city, and have let contract for 600 ft. to CHARLES T. HEINS. W. C. Crozer is City Engr.

CLEVELAND, OHIO.—Bids are asked until June 12 for constructing concrete settling and screening basin, and 2,600 ft. of 60-in. iron submerged outlet pipe. Robert Hoffmann is Asst. Ch. Engr.

YOUNGSTOWN, OHIO.—Bids are asked until noon, May 31, by the Board of Public Service, for constructing sewer in Rebecca St., from Shehy St. to Himrod Ave. G. T. Prosser is Clk.; F. M. Lillie is City Engr.

RAVENNA, OHIO.—We are officially advised that the following are contracts let on May 16, for installing sewer system, for which bids were asked by E. W. Marcin, Village Clk., until May 15: For constructing sewers, The HANLON CONSTRUCTION CO., Cleveland, $37,685; for disposal plant, McSHAFFERY & SON, Akron, $21,673; for furnishing pipe, W. B. STRATTON, Toronto, $17,462. Williams, Proctor & Potts, 17 Battery Pl., New York, are Engrs.

STEUBENVILLE, OHIO.—Bids are asked until June 1, by the Board of Public Service, for construction of sewers in a number of the streets here. T. W. Vance is Clk.

TOLEDO, OHIO.—The city will soon ask for bids for constructing eleven sewers in various parts of the city. Frank I. Consaul is Ch. Engr. Bd. Pub. Service.

BARBERTON, OHIO.—The Walter P. Rice Engineering Co. has completed plans and specifications for sewage system in West Barberton, which is estimated to cost about $35,000.

CINCINNATI, OHIO.—We are officially informed that it is proposed to construct a sewer system at Lockland, to cost about $80,000. Plans have been made by the Riggs-Sherman Co., Toledo. G. W. Davis is Mayor.

MARION, IND.—S. M. GRANDY has been awarded the contract for construction of the Nelson St. sewer, his price being 49 cts. per lin. ft. and $16 each for manholes.

SAVANNA, ILL.—We are officially informed that the city intends to put in a Marsh sewer this year. There will be about $20,725 ft. of 8 to 15-in. pipe, and the system is estimated to cost $20,000. J. J. Nichols is Clk.

BATAVIA, ILL.—Bids are asked until June 1, for constructing a pipe sewer seven miles long, ranging in diameter from 24 ins. down. Estimated cost, $83,000. C. A. Prout is City Engr.

JACKSONVILLE, ILL.—We are officially advised that SMITH & FERNANDES, of Jacksonville, have secured contract to build 18,600 ft. sewer, from the Board of Local Improvement. John L. Smetters is City Engr.

LINCOLN, ILL.—We have been officially informed that contract for 623 ft. of 12-in. sewer has been let to DAVID MITCHELL, of Lincoln, at $29,904, and $15 each for manholes. J. G. Melluish is Des. Engr.; E. G. King is Engr.-in-Charge.

BELLEVILLE, ILL.—The contract has been let for construction of entire sewer, which will be about five miles in length, to REEB BROS., of Belleville, at $43,117.

WAUKESHA, WIS.—Bids are asked until 2 p. m., June 1, by the Board of Public Works, for construction of pipe sewer on College Ave., about 59 ft. long. John P. Dey, John Brehm and Henry Lockney are members of the Bd. Pub. Wks.

RICHLAND CENTER, WIS.—Bids are asked until June 2, by the Common Council, for construction of new sewers. F. P. Lawrence is Chn.

PIPESTONE, MINN.—We are officially advised that W. E. YOUNG has been awarded contract for construction of sewers at $2,470. S. W. Funk is City Recdr. L. P. Wolff, St. Paul, Minn., is Des. Engr.

FAIRBURY, NEBR.—We are officially advised that $8,000 will be expended on sewer mains, and that bids will be called during June. Adna Dobson, Lincoln, Nebr., is Des. Engr.; W. W. Watson is City Engr.; F. D. Cain is City Clk.

HILLSBORO, N. DAK.—GIL HAGGART has been awarded the contract, by the City Council, for putting in a trunk sewer at Hillsboro. The contract price is about $15,000.

ST. LOUIS, MO.—Contract for installing septic tank system has been awarded to LOUIS & KITCHEN, Chicago, at $15,636. The system will have a daily capacity of 300,000 gallons.

Bids are asked until June 1, by the Board of Public Improvements, for constructing Rocky Branch sewer from Elliot Ave. to the Mississippi River. Estimated cost, $125,000.

MACON, MO.—Bids are asked until June 4, by Charles L. Farrer, Clk., for construction of sewers in District No. 22.

CAPE GIRARDEAU, MO.—Bids are asked until 8 p. m., July 2, by the City Council, for constructing a complete sewage system in Sewer District No. 1. William H. Coerver is Mayor; Granberry Jackson, Nashville, Tenn., is Engr. (Advertised, Engineering News.)

ARDMORE, IND. T.—See under Water Supply.

MEDFORD, ORE.—Bids are asked until noon, June 12, by the City Council, for installing sewer in District No. 5. J. E. Toft is City Recdr.

SANTA ROSA, CAL.—The Sewer Committee has been empowered to lay extensions of the E St. sewer main on Humbolt St., to connect the Mailer and other buildings.

BOISE, IDAHO.—Bids are asked until noon, June 2, by Emily L. Savidge, City Clk., for constructing a lateral sewer in District No. 104.

REGINA, SASK.—See under Water Supply.

STREETS AND ROADS.

The names of parties awarded contracts are printed in capital letters.

PORTLAND, ME.—Bids are asked until June 15, by Capt. A. W. Yates, Q. M., at Portland, for grading post site, sub-grading roads, relaying railroad track, construction of roads, walks and gutters, etc., at Fort Levett.

BOSTON, MASS.—Contracts for building state roads have been awarded as follows. WM. SEARS, of East Dennis, for road in Dennis, at $5,016; O. T. BENEDICT, of Pittsfield, for road in Lee, $2,290; the LANE QUARRY CO., of Quincy, for roads in Wareham, town contract, $5,530. Bids were opened May 15.

NEW BEDFORD, MASS.—Bids, in triplicate, are asked until 10 a. m., June 2, by Capt. George L. Goodale, Q. M., at 263 Summer St., Boston, for constructing macadam roads and concrete walks at Fort Rodman, near this city.

VOLUNTOWN, CONN.—Bids are asked until 3 p. m., May 25, by the Board of Selectmen for grading and constructing two sections of road. E. Byron Gallup, John Herbert and Myron Kinnie are Selectmen.

BRIDGEPORT, CONN.—Specifications and bidding sheet for paving to be done here, as advertised in issue of May 17, are on file at the office of Engineering News, New York. Bids are asked until June 9.

ALBANY, N. Y.—Bids are asked until June 4, by the Board of Contract and Supply, for improving Judson St. from Second St. to Livingston Ave., 590 lin. ft. The work includes grading, curbing, paving, sidewalk laying, and pipe sewer. Isidore Wachsman is Clk.; Walter E. Melius is City Engr.

NEW YORK, N. Y.—We are officially advised that the following bids have been received for (a) regulating, grading, setting curbstones, flagging the sidewalks, laying crosswalks, building approaches and placing fences in Cromwell Ave., from East 155th St. to Jerome Ave.; (b) for regulating, grading, etc., in Montgomery Ave., from West 176th St. to West 177th St.; (c) for paving with asphalt blocks, on concrete foundation, the roadway of Sherman Ave., from East 161st to East 164th Sts., and setting curb where necessary; (d) for paving with asphalt blocks on concrete foundation the roadway of East 145th St., from Mott to Walton Aves., and setting curb where necessary; (e) for regulating and paving the roadway of Brown Pl. with sheet asphalt on a concrete foundation, from East 135th to East 137th Sts., and with asphalt block and granite blocks on concrete foundation from East 137th to East 138th Sts. George L. Brown, 613 West 146th St., (a) $56,757; J. J. Hart Co., 54 Broad St., (a) $90,508, (b) $10,364; Thomas T. Murray, 1871 Jerome Ave., (a) $31,238, (b) $10,537; Patrick Reddy, (a) $48,017; Alliegro & Spallone Construction Co., 555 East 154th St., (a) $33,635; Atlanta Construction Co., 432 East 91st St., (a) $54,158; P. J. Kane, 933 East 150th St., (a) $39,100, (b) $12,295; C. W. Collins, Fordham Road and Morris Ave., (a) $56,513, (b) $11,990; W. J. Rogers, 1909 Amsterdam Ave., (a) $54,422, (b) $10,660; A. G. Vermilye, 463 West 144th St., (a) $49,578; P. Maher, 173d St. and Jerome Ave., (a) $39,897, (b) $11,906; Gallo & Pittelli, 127 Mulberry St., (a) $110,277; George I. Bailey, (b) $9,667; W. J. Murray, 145 East 125th St., (b) $13,703; D. W. Moran, 562 Burnside Ave., (b) $10,985; Edwin Branning, Cedar Ave. and West 177th St., (b) $11,053; C. Beckwith, West 127th St., (b) $11,092; S. Ammanna & Bro., (b) $11,619; J. C. Voorhies, (b) $12,144; Continental Asphalt Paving Co., 42 Broadway, (c) $9,612, (d) $2,651; Hastings Pavement Co., 25 Broad St., (c) $9,758, (d) $2,861; Barber Asphalt Paving Co., 114 Liberty St., (c) $10,070, (d) $4,538, (e) $7,497; Uvalde Asphalt Paving Co., 1 Broadway, (e) $7,058; Asphalt Construction Co., Madison Ave. and 137th St., (e) $5,094.

We are officially informed that the following are the bids received by Louis F. Haffen, Pres. Boro. Bronx, for constructing the Transverse Road at Kingsbridge Road: C. Beckwith, West 27th St., $112,990; J. J. Hopper, 215 West 125th St., $127,069; Uvalde Asphalt Paving Co., 1 Broadway, $106,344; John J. Hart & Co., 54 Broad St., $139,839 (informal); George I. Bailey, 499 Fulton Ave., $100,713; Culgin-Pace Contracting Co., 787 Tremont St., $114,420; Leahy Construction Co., 1446 Prospect Ave., $123,919; C. W. Collins, Fordham Road and Morris Ave., $113,145.

We are officially advised that the following bids were received for paving with Madina paving blocks, the roadway of East 163d St., from Third to Stebbins Aves.: Continental Asphalt Paving Co., 32 Broadway, $49,884; Hastings Pavement Co., 25 Broad St., $51,773. For regulating, grading, etc., Taylor St., from Morris Park Ave. to West Farms Road: George I. Bailey, 1199 Fulton Ave., $17,172; W. T. Murray, 1155 Boston Road, $19,008.

Bids are asked until 11 a. m., May 28, by Joseph Bermel, Pres. Boro. of Queens, for paving with wood block pavement, on concrete foundation, various streets; also for regulating, grading, curbing, etc., on various streets in the Borough of Queens.

Bids are asked until 11 a. m., May 31, by Louis F. Haffen, Pres. Boro. of Bronx, for paving with asphalt pavement, on concrete foundation, the roadway of Vyse Ave. Also for regulating, grading, curbing, etc., various streets in the Borough of Bronx.

BUFFALO, N. Y.—Bids are asked until May 31 by the Board of Public Works, F. G. Ward, Comr., for repaving six streets; also macadamizing or paving Willow Lawn Pl.

PLEASANTVILLE, N. Y.—Bids are asked until 8 p. m., June 7, by the Board of Trustees, for macadamizing, etc., Marble and Washington Aves., and Broadway. W. S. Moore is Village Clk. (Advertised Engineering News.)

SCHENECTADY, N. Y.—Plans for widening Broadway, from the New York Central culvert to Second St. are now being prepared at the office of the City Engineer, and will be presented before the Common Council. The plans call for a uniform width of 70 ft.

AMSTERDAM, N. Y.—Bids are asked until June 5 for grading 10 streets, altogether about two miles in length. F. E. Crane is City Engr.

MORRISTOWN, N. J.—Bids are asked until June 11, by the Board of Chosen Freeholders, for macadamizing Morristown and New Vernon Road, Mountain Ave. Road and Sussex and Hamburg Turnpikes. Arthur S. Pierson is City Engr.

SCRANTON, PA.—Bids are asked until 11.30 a. m., May 25, by the Department of Public Works, C. R. Acker, Dir., for laying 4-ft. flagstone sidewalks on both sides of Fifth Ave., between Broadway and Emmett Sts., and on the westerly side of Railroad Ave., between South Seventh and Emmett Sts., where the same are not already laid. Henry Jifkins, is Ch. Engr., Dept Pub. Wks.

PATTON, PA.—Bids are asked until 8 p. m., June 11, by H. C. Yerger, Boro. Engr., for paving on three streets. E. S. Moore is Boro. Secy. (Advertised Engineering News.)

MEADVILLE, PA.—Bids are asked until 8 p. m., June 6, by the City Council, for grading, paving and curbing streets surrounding Diamond Park. H. S. Robinson is City Clk. (Advertised Engineering News.)

CLARION, PA.—Bids are asked until 7.30 p. m., June 18, by the Council of Borough of Clarion, for grading and paving on Main St., with about 18,000 sq. yds. vitrified brick. R. W. Guethoff is Secy. (Advertised Engineering News.)

BLUEFIELD, W. VA.—Bids are asked until 8 p. m., June 12, by J. T. Akers, Audr., for paving Bland St., part of Mercer St. and part of Bluefield Ave., with 9,600 sq. yds. of brick or block pavement. (Advertised Engineering News.)

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MINING MACHINERY.—Colon, Panama.—We are in receipt of a letter from Jacob Kull, 622 Bolivar St., Colon, Panama, in which he states that he is in the market for gold mining apparatus for prospecting quartz mines.

FLEXIBLE JOINTS.—Japan.—We are in receipt of a letter from H. Inoue, c/o Wakamatsu Harbor Works Co., Fukuoka Ken, Japan, in which he states that he is about to lay a submerged water main under deep water across the harbor, and desires to get in communication with firm making flexible joints and pipe.

REINFORCED CONCRETE BUILDING MATERIALS, CONCRETE MIXER, ETC.—Vancouver, B. C.—Merrills Finance Co., 311 Hastings St., Vancouver, B. C., writes us that it has plans in progress for a 5-story apartment house, 40 × 126 ft., with three L's, containing about 200 rooms, and is in the market for concrete, reinforcing materials and a concrete mixer.

DITCHING MACHINERY.—Brooklyn.—A. E. Estberg, 434 15th St., Brooklyn, N. Y., writes us that he is in the market for a drainage ditching machine for use in swampy land.

PULLEYS, SHAFTING, COUPLINGS, CLUTCH PULLEYS, BLOWERS AND PIPE, SAW MILL, ETC.—Bay City, Mich.—We are in receipt of a letter from the Michigan Pipe Co., in which it states that it is in the market for pulleys, shafting, couplings, clutch pulleys, 24-in. blower and pipe, 4 to 24-in. belting, saw mill for sawing logs, and babbitt.

BALTIMORE, MD.—Bids are asked until May 29, by the Board of Awards, for grading, curbing and paving with sheet asphalt, asphalt block or bitulithic on portions of several streets, with asphalt blocks on Edmondson and Fremont Aves., and with Belgian blocks on Lee St. B. T. Fendall is City Engr.

NEWTON, MISS.—We are officially advised that the Town of Newton will expend about $9,000 on street improvements this season. Streets will be graded, paved, etc. J. D. Carr is Mayor, Charles L. Wood is City Engr.

LAKE CHARLES, LA.—The City Council of Lake Charles has awarded the street paving contract to THE MUNICIPAL CONSTRUCTION CO., of Kansas City, at $69,000.

MEMPHIS, TENN.—At a recent meeting of the Park Commission, the contract to extend Riverside Park to Overton Park was awarded to ROACH & MANNIGAN, at a rate ranging from 16 to 19½ cts. a cu. yd.

Bids will be advertised for at once for grading the parkway from Manassas St. to a point near the Louisville & Nashville Ry.

DANDRIDGE, TENN.—Contract for building 80 miles of pike road in Jefferson County has been awarded to SMITH BROS. & JENKINS and W. W. STOKELEY. Their bid, while not made public, is within the funds available, and the 80 miles of pike will be secured for $220,000 or less.

LOUISVILLE, KY.—Bids are asked until June 14, by John Dyler, Superv. of Roads, for constructing and reconstructing 63 miles pikes in this county. Estimated cost, $175,000.

The Board of Public Works has awarded contracts to GEORGE W. GOSNELL and R. LEE FIGG, of Louisville, for about $12,000 worth of granitoid and brick sidewalks.

YOUNGSTOWN, OHIO.—The Board of Public Servce has awarded street improvement contracts as follows: West Rayen Ave., brick paving, from Belmont to Covington Sts., EVAN J. DAVIS & SON, at $6,273; West Rayen Ave., brick paving, from West Ave. to end of street, MULLIN, MILLER & CALDWELL, $11,605; St. Clair Ave., brick paving, E. J. DAVIS & SON, $5,304.

The Board of Public Service will advertise at once for bids for paving of Grant St., from Elm to Belmont Sts.

ASHLAND, OHIO.—Bids are asked until noon, June 1, by the Mayor and Council, for paving the entire length of Highland Ave.

TOLEDO, OHIO.—The following contracts have been let for street paving in this city: Utica St., Walnut to Lagrange Sts., JAMES SHEEHAN, at $4,739; Hamilton St., Erie to Ewing Sts., KERLIN BROS., $20,851; Page St., Lagrange to Sherman Sts., GARRIGAN BROS., $12,532; Mettler and Rosalind Sts., Cherry to Lagrange Sts., JAMES SHEEHAN, $10,163. Frank I. Consaul is Ch. Engr. Bd. Pub. Service.

MADISON, IND.—It is reported that the contract for constructing 12½ miles macadam road in Saluda Township has been awarded to CHARLES E. IDDINGS, of Hanover, at $12,240. Bids were opened May 8.

MICHIGAN CITY, IND.—Bids are asked until June 5, by the Board of Public Works, for paving Ninth St., 20,000 sq. yds. H. M. Miles is City Engr.

CRAWFORDSVILLE, IND.—We are officially advised that Waugh & Buchanan, of this city, have contract for paving Wabash Ave. with vitrified brick on sand foundation, at about $24,000. James A. Harding is Surveyor Montgomery County.

CHEBOYGAN, MICH.—We are officially informed that Cheboygan will expend $55,000 this season on street paving. R. W. Roberts, City Engr. of Saginaw, Mich., is preparing plans, and bids will be asked for about June 5.

LINCOLN, ILL.—We are officially informed that SHIRK & HARTNELL have contract for paving seven streets with brick, at $35,126. J. G. Melluish, of Bloomington, Ill., is Engr.; James C. Greenslate is City Clk.

CHICAGO, ILL.—The 21st Ward is to have a new street which will run from Indiana St. to Chicago Ave., east of St. Clair St.

EDWARDSVILLE, ILL.—It is reported that A. F. FRANKS, of Jacksonville, has secured the contract for 15,200 sq. yds. brick paving on Portland cement concrete foundation and 9,300 lin. ft. granitoid combined curb and gutter, at $35,119.

WHEATON, ILL.—We are officially informed that macadamizing to cost about $200,000 will be done this summer; also brick paving to cost about $50,000. C. A. Prout is City Engr.

RICHFIELD CENTER, WIS.—Bids are asked until June 2, by F. P. Lawrence, Chn. Com. on Pub. Wks., for paving and grading a number of streets in this town.

SIOUX CITY, IOWA.—Bids are asked until May 29, by the City Council, for 45,000 sq. yds. asphalt paving, and on June 5 for 18,000 sq. yds. creosote block paving. J. M. Lewis is City Engr.

BEMIDJI, MINN.—Bids are asked until May 29, by the Board of County Commissioners, for constructing roads in the town of Liberty, Coymant and Taylor and the Village of Farley. A. W. Danaher is Chn.

ST. PAUL, MINN.—The County Commissioners have awarded contract to J. M. THORNTON, St. Paul, for macadamizing North St. Paul Road.

TOPEKA, KANS.—Bids are asked until 5 p. m., June 4, by J. H. Squires, City Clk., for repaving, with sheet asphalt, Kansas Ave., from Crane St. to Tenth Ave. James McCabe is City Engr.

FARGO, N. DAK.—JAMES KENNEDY, of Fargo, has been awarded contract for paving, with cedar blocks, Broadway, from the Great Northern Ry. tracks to those of the Northern Pacific Ry. Samuel F. Crabbe is City Engr.

ST. LOUIS, MO.—Following are the lowest bids submitted to the Board of Public Improvements, for street paving: Ailanthus St., Trinidad Asphalt Mfg. Co., $3,428; Halliday Ave., G. Eyermann & Bro., $9,289; Emily St., James T. McMahon, $10,542; 21st St., T. E. Cavanaugh, $2,869; Fairfax Ave., Hanick Quarry & Construction Co., $3,580; Clara Ave., Hanick Quarry & Construction Co., $11,568; Union Boulevard, Granite Bituminous Paving Co., $47,331.

Bids are asked until June 1, by the Board of Public Improvements, for paving Bartmer Ave., between Page and Belt Aves., with bituminous macadam; also for paving 26 alleys with brick.

EVERETT, WASH.—GEORGE McKENZIE, of Everett, has been awarded the contract for paving Hewitt Ave., at $17,000.

SEATTLE, WASH.—We are officially informed that the following bids were received by the Board of Public Works on May 12, for (a) improving Seventh Ave., and paving with brick and sandstone, (b) for improving Pike Pl., by grading, planking, etc.: F. McLELLAN & CO., Burke Bldg., Seattle, (a) $34,712 (contract awarded), (b) $21,760; Sparger Concrete Co., Colman Block, Seattle, (a) $40,733, (b) $21,752; James Markey, Seattle, (a) $41,122, (b) $23,733; STIRRAT & GOETZ, 602 Bailey Bldg., Seattle, (a) $41,931, (b) $21,095 (contract awarded); Seattle Stone Co., Globe Block, Seattle, (a) $37,739, (b) $25,232; Barber Asphalt Paving Co., 612 Mutual Life Bldg., Seattle (a) $38,601; T. Ryan & Co., Sullivan Block, Seattle, (a) $38,032.

We are officially informed that the BARBER ASPHALT PAVING CO., 612 Mutual Life Bldg., has contract for paving Howard Ave., North, with asphalt, at $15,239.

SPOKANE, WASH.—J. C. KENNEDY has been awarded a contract for recurbing, reguttering and constructing sidewalks on Riverside Ave., between Monroe and Chestnut Sts., at $9,600.

SACRAMENTO, CAL.—We are officially advised the contract for repaving K and Second Sts., in the City of Sacramento has been awarded to CLARK & HENRY, of Stockton, Cal. Total of bid, $24,635. George N. Randle is City Surv.

REGINA, SASK.—See under Water Supply.

MANUFACTURING PLANTS.

The names of parties awarded contracts are printed in capital letters.

WORCESTER, MASS.—It is stated that the carpet factory of M. J. Whittall is to be enlarged. The addition, a new building four stories, 60 × 150 ft., will be used for general mill purposes. The power-house will also be enlarged, making room for several new boilers.

PEABODY, MASS.—The contract for the new factory buildings for the A. C. Lawrence Leather Co., of this city, was awarded to BIGELOW & MABIE, 127 Federal St., Boston. W. B. Page, 34 North Market St., Boston, is Arch.

HARTFORD, CONN.—The American Cigar Co. has secured a five-acre tract near this city and it is stated that it is the intention of the company to build a power plant, storage warehouse and stripping house.

NEW LONDON, CONN.—Brainerd & Armstrong of New London are preparing to build a dyehouse, 160 × 287 ft., one story high. A 300-HP. boiler will be installed.

SCHENECTADY, N. Y.—The AMERICAN BRIDGE CO., 42 Broadway, New York, has been awarded the contract for steel work on the large extension to the turbine department, to be erected by the General Electric Co.

DUNKIRK, N. Y.—It is reported that plans have been completed for extensive improvements by the American Locomotive Company at its works near Dunkirk, N. Y.

NEW YORK, N. Y.—A syndicate headed by John R. Bartlett, 2 Wall St., New York, has planned to erect a 14-story storage warehouse on the block bounded by West Washington, Reade and Duane Sts., New York. The plan will be equipped with the most modern refrigerating system, with auction rooms and stores. W. B. Tubby, 81 Fulton St., New York, is Arch. W. L. Hill, Pres. Eastern Cold Storage Co., of Boston, is interested.

JERSEY CITY, N. J.—Colgate & Co., Jersey City, N. J., have had plans completed and contract awarded to the CONCRETE STEEL CO., 29 Broadway, New York, for an extensive addition to their factory. The addition will be built entirely of reinforced concrete, it will be eight stories high, 84 × 102 ft. The corrugated bar system will be used throughout. W. P. Field, Newark, N. J., is Engr.

CAMDEN, N. J.—The contract for erecting yarn mill and power-house for the B. F. Boyer Co., at Marlton and River Aves., has been awarded to H. E. HAVENS, of this city. The building will be of slow burning brick, 56 × 208 ft. The transmission of power to the main building will be by means of a rope drive.

PHILADELPHIA, PA. — Dodge & Day, Engrs., Philadelphia, have plans in progress for the increasing of the capacity of the American Axle Works plant by fifty per cent.

NAZARETH, PA.—Plans have been completed for the erection of the large cement plant for the Atlantic-Portland Cement Co., at this place. Dr. I. A. Bachman is interested.

EASTON, PA.—It is reported that the Crown Silk Co. of this city is arranging to double the capacity of its plant here.

WILMINGTON, DEL.—The plot at 15th and Walnut Sts., Wilmington, has been sold it is reported to the Delaware Hosiery Co., where a new factory is planned. C. W. Prettyman, Wilmington, is interested.

BALTIMORE, MD.—It is stated that a large sawmill is to be erected at the Mount Clare shops of the Baltimore & Ohio Railroad Company. The new building will be of brick and steel, two stories, 70 × 247 ft.

WASHINGTON, D. C.—RICHARDSON & BURGESS, of Washington, D. C., have been awarded the contract for constructing the car house for the Capital Traction Co. Wood, Donn & Deming, 808 17th St., N. W., Washington, are Archs.

WASHINGTON, D. C.—Plans have been completed and bids received for an addition to the Rock Creek Auto & Wagon Works, 2613 Pennsylvania Ave., N. W. The addition will be two stories and basement, 64 × 75 ft., brick and steel, electric wiring. A. B. Mullett & Co., 1411 F St., Washington, are Archs.

GREENSBORO, N. C.—The White Oak Cotton Mill Co., which is owned by the Proximity Manufacturing Co., will increase its plant to its full capacity. The company will add 30,000 spindles and 1,000 looms. This will fill the original buildings, which were designed for double their present equipment. The mill manufactures blue denims.

ROANOKE RAPIDS, N. C.—It is reported that a movement is on foot to erect large pulp and paper mill at this place. Power will be taken from the Roanoke River. A. H. Christian, Jr., E. B. Addison, T. C. Williams, Jr., and W. M. Hobliston, of Richmond, Va., are interested.

CHARLOTTE, N. C.—The Regina Hosiery Company of Haw River has been organized and incorporated with a capital stock of $25,000. A plant will at once be established for the manufacture of seamless hosiery. The output will be about sixty dozen pairs a day. J. A. Long is Pres. and W. H. Childrey is Secy.

BESSEMER CITY, N. C.—The Bessemer City Cotton Mills will build a finishing plant, which is expected to cost from $15,000 to $20,000 for this purpose. The company operates 9,200 ring spindles and 406 looms, producing madras cloth, fancy weaves, etc., and is capitalized at $175,000.

GADSDEN, ALA.—The Southern Steel Company will at once begin making large extensions to its present plant. Not only will a rod mill, a wire and nail and a fence machine plant be built, as heretofore announced, but there will be erected a universal rolling mill that will make finished steel of all shapes and dimensions. The first use the mill will be put to will be to roll plates for steel cars, which will be built at Gadsden by the company. The mill will represent an expenditure of about $1,200,000, and will be an entirely new departure in Southern steel manufacture.

CHALMETTE, LA.—The New Orleans Terminal Co., will, within the next 60 days, ask for bids for the erection of a 2,000,000-bushel capacity grain elevator at Chalmette, La., the company's New Orleans terminal point. Capt. J. F. Hickley and L. S. Berg, of New Orleans, have prepared plans.

CARLISLE, O.—The Cleveland & Southwestern Traction Company is said to be negotiating for a tract of land at Carlisle, near its main power station, and it is stated that the company proposes to erect a new car house and shops at that point, which is geographically about the center of the company's system. The company's Elyria car house was destroyed by fire some time ago, while the present shop at [illegible] ners are entirely inadequate [illegible] work.

FOSTORIA, O.—The general [illegible] erecting the six factory and [illegible] ings for the Crouse Termai[illegible] of Fostoria, was awarded [illegible] BROTHERS CONSTRUCTIO[illegible] Cleveland, O. Plans were [illegible] Osborn Engineering Co., of [illegible]

MARION, IND.—We are [illegible] formed that the Marion Iron [illegible] Company, Marion, Ind., will [illegible] forced concrete factory, 500 [illegible] wings 250 × 80 ft. The equi[illegible] power, lighting and heating [illegible] blowers for kilns, trolleys, [illegible] way and link belt equipment [illegible] son is Arch., and Hugo Diem[illegible] Engr., both of Indianapolis.

FAIRVIEW, OKLA.—Bids are [illegible] Kansas City, Mexico & Orient [illegible] Kansas City, Mo., until June [illegible] construction of a ten-stall brick [illegible] at Fairview, Okla. M. P. [illegible] Engr.

BELLINGHAM, WASH. — [illegible] Sound Mills & Timber Co. [illegible] large fir mill on property adj[illegible] holdings in this city at cost of [illegible] will be equipped with most mo[illegible] ery.

SPOKANE, WASH.—The Hu[illegible] Switch Co. is contemplating th[illegible] a big plant in Spokane at a co[illegible] Headquarters of company are [illegible] Wyo.

BERKELEY, CAL.—Tatum & [illegible] San Francisco, have purchased [illegible] land in West Berkeley and will [illegible] to duplicate the one destroyed at San Francisco.

MISCELLANEOUS CONTRACTS.

The names of parties awarded contracts are printed in capital letters.

DAM.—Lakeville, Conn.—Bids are asked until June 1, by the Lakeville W[illegible] Co., for building a dam. Geo. Knight is T[illegible] (Advertised Engineering News.)

DITCH.—Carroll, Iowa.—Contract for building the Sievers drainage ditch, [illegible] ft. long, has been awarded by the Board of County Supervisors to D. MITTS.

BOILER.—Boston, Mass.—The Fore River Shipbuilding Co. was the only bidder for furnishing a marine boiler for the U. S. S. Iwana, at Boston. Its bid was $1[illegible].

DREDGING.—Washington, D. C.—The ERNEST L. MINOR DREDGING CO. was awarded contract for dredging in Rappahannock River; bids for which were published last week.

SCREENS.—Fort Meade, S. Dak.—Bids are asked until 2 p. m., June 11, by Maj. G. K. Hunter, Constr. Q. M., for screen windows and doors for six buildings. (Advertised Engineering News.)

DRAINAGE CANAL.—Wichita, Kans.—Bids asked until 5 p. m., June 18, by R. N. Dorr, City Clk., for the construction of the Wichita Drainage Canal, involving about [illegible] cu. yds. of excavation.

DITCHES.—Willmar, Minn.—Bids are asked until June 1, by Lewis Johnson, Audr. of Kandiyohi County, for building ditches which involve about 276,874 cu. yds. of excavation. Estimated cost is $31,000.

GRADING.—York, Pa.—Bids are asked until noon, June 5, by the P. A. & S. Small Land Co., Centre Sq., York, for grading land in North York and Manchester Townships. (Advertised Engineering News.)

DREDGING.—Bridgeport, Conn.—Bids are asked until noon, June 21, at U. S. Engineer's office, New London, for dredging in Bridgeport Harbor. Harry Taylor is Major Engrs. (Advertised Engineering News.)

MOTORS, MACHINERY, ETC.—Lawrence, Kans.—Bids are asked until 2 p. m., June 4, by H. B. Peairs, Supt. Haskell Institute, for five electric motors and appurtenances, woodworking machinery and tools.

CONDUITS.—We are officially informed that the ABBOT-GAMBLE CO. has been awarded the contract for laying conduits on the Highwood property near Englewood, N. J. Chas. W. Leavitt, Jr., is Engr.

DREDGING.—Jacksonville, Fla.—Contract for dredging a channel at Dames Point shoals has been awarded to the NORTH AMERICAN DREDGING CO., of San Francisco. Total cost will be about [illegible].

LEVEE WORK.—Memphis, Tenn.—Bids are asked until noon, June 14, by Capt. W. D. Connor, U. S. Engr., Room 20, Custom House, Memphis, for about 448,500 cu. yds. of levee work in the Reelfoot Levee District.

STORAGE WORKS.—Portland, Ore.—Specifications and contract drawings for storage works near Conconully, Wash., bids for which are asked until June 27, are on file at office of Engineering News. Advertised April 26 to May 10.

ROAD ROLLER, CRUSHER, MOTOR, ETC.—St. Cloud, Minn.—Bids are asked until 8 p. m., June 4, by Henry J. Limperich, City Clk., for a 15-ton steam road roller, stone crusher and electric motor. (Advertised Engineering News.)

DISTRIBUTING SYSTEM.—Mitchell, Nebr.—Plans and specifications for the construction of about 135 miles of distributing system, as advertised in Engineering News, May 3 to 24, are on file at the New York office. Bids are asked until June 15.

TUNNEL.—Des Moines, Iowa.—Geo. Dobson, City Engr., is preparing plans for the construction of a five-ft. drainage tunnel about 2,500 ft. long, to be built 10 ft. beneath the surface of the city. The entire distance will be tunnelled.

CANAL.—Portland, Ore.—Plans and specifications for the construction of [illegible] miles of canal in connection with the Umatilla Project, are on file at the New York office of Engineering News. Bids asked until June 29. (Advertised Engineering News, May 10 and 24.)

RETAINING WALL.—Pittsburg, Pa.—We are officially informed that the GEORGE M. BOLE CONSTRUCTION CO., 202 Ninth St., Pittsburg, has been awarded the contract to build a reinforced concrete retaining wall on Melwood Ave., at $13,918.

GATES.—Boise, Idaho.—The Secretary of the Interior has awarded a contract to the UNITED IRON WORKS, of Oakland, Cal., for furnishing gates and lifting devices for use in the main canal and embankments of the Payette-Boise project, at $15,045.

CEMENT.—Boise, Idaho.—The Secretary of the Interior has approved the contract on behalf of the United States with the Illinois Steel Co., of Chicago, Ill., for supplying 14,000 bbls. of Portland cement for the Payette-Boise project, at $1.60 per bbl.

CEMENT.—Glendive, Mont.—The Secretary of the Interior has awarded a contract to the ILLINOIS STEEL CO., of Chicago, for furnishing from 8,000 to 12,000 bbls. of Portland cement for the Lower Yellowstone project, at $1.60 per bbl., f. o. b. Chicago.

TUNNEL.—Boston, Mass.—The JAS. J. COUGHLAN CONSTRUCTION CO., 19 Worthington St., Boston, has been awarded the contract for constructing Section 9 of Washington St. Subway for city of Boston by the Boston Transit Commission, at $196,-[illegible].

TEST BORINGS.—New York, N. Y.—Bids are asked until noon, June 4, by Alexander E. Orr, Pres. Bd. Rapid Transit Comrs., for making test borings on the lines of proposed rapid transit railway routes. B. L. Burrows is Secy. (Advertised Engineering News.)

TIMBER AND PLANK.—Albany, N. Y.—Bids are asked until noon, May 28, by N. V. V. Franchot, State Supt. Pub. Wks., for 280 M. ft. B. M. white oak; 714 M. ft. B. M. white pine; 557 M. ft. B. M. Georgia Pine; 145 M. ft. B. M. spruce, etc. Deliveries by Dec. 1.

WHARF.—New Orleans, La.—The Bureau of Yards and Docks, Navy Department, will shortly call for bids for constructing a steel and timber wharf on pile foundations at the Naval Station, New Orleans, La., on the Mississippi River front. The length will be about 315 ft. The wharf is to be an extension of the wharf now in place, and of the same construction.

DREDGING.—Detroit, Mich.—Bids were received May 14, by Col. Chas. E. L. B. Davis, Engr. Jones Bldg., for dredging Round Island Shoals, St. Mary's River, Mich. The bids were: M. Sullivan, Buffalo, N. Y., Shoal No. 1, 29½ cts. per cu. yd.; Lake Erie Dredging Co., Buffalo, Shoal No. 1, 33 cts., Shoal No. 2, 49 cts; Great Lakes Dredge & Dock Co., Chicago, Shoal No. 1, 35 cts., Shoal No. 2, 55 cts.

CAISSON LOCK GATES.—Boston, Mass.—The following are the bids received May 14 by the Charles River Commission, 367 Boylston St., Boston, for the erection of two steel caisson lock gates in the Charles River: H. P. Converse, Boston, Mass., $44,400; New England Structural Co., Everett, Mass., $33,-970; Monad Engineering Co., New York, $30,975; New Jersey & West Virginia Bridge Co., 1201 Fuller Bldg., New York, $26,784.

TUNNELS.—Chicago, Ill.—The time for lowering the three Chicago River tunnels has been extended to July 1. The work will include the substitution of electricity for cable traction. The work on the Washington St. and La Salle St. tunnels will be done by the city. That on the larger Van Buren St. tunnel will be done by the Chicago Union Traction Co. John Ericson is City Engr. J. M. Roach is Pres. and Gen. Mgr. of the Traction Co.

DAM.—Billings, Mont.—We are officially informed that the following bids were received on May 10 for the construction of the Lower Yellowstone Dam, a rock-filled timber-cribbed structure, requiring about 500 M. ft. B. M. lumber, 700 piles, sheet piles, rock filling and rip-rap and 800 tons of steel: Campbell, Ferrier Co., 207 Lonsdale Bldg., Duluth, Minn., $124,705; Newman & Hoy, St. Paul, Minn., $133,665; Pacific Coast Construction Co., 112 Sherlock Bldg., Portland, Ore., $142,825; Hughes & Olson, Butte, Mont., $154,068. The Campbell Ferrier Co. bid is made contingent on the securing of entire contract. H. N. Savage is Superv. Engr., E. E. Weymouth, Project Engr. and G. C. Emerson Constructing Engr.

TUNNEL.—Los Angeles, Cal.—The Board of Public Works has been petitioned to increase the size of the proposed Hill St. tunnel, beginning at First St. and running to Temple, from 32 ft. to 52 ft., the Los Angeles-Pacific Ry. to use the tunnel and defray half the expense of construction. The estimated cost of the improvement is $50,000. The railway plans to lay a double track through the tunnel 479.16 ft. in length, and then for its own use to construct a second bore from Temple St. to Sunset Boulevard, a distance of 1,000 ft., at a cost of $125,000.

SUN RIVER PROJECT.—It is announced by the Reclamation Service that the Secretary of the Interior has apportioned the sum of $500,000 for beginning a great irrigation work in the Sun River Valley, Montana. For the past two years the engineers of the Reclamation Service have been making surveys and completing plans on the important project. The preliminary investigations of the Sun River Project indicate that 256,000 acres are reclaimable in this valley at a cost of about $30 per acre, or a total expenditure of nearly $8,000,000.

SUBWAY.—Philadelphia, Pa.—The Philadelphia Rapid Transit Co. has awarded the contract for building the Market St. subway to the MILLARD CONSTRUCTION CO. The contract includes the building of two sewers that are to be placed on either side of the subway, as well as caring for the electric conduits, the telephone conduits, the high pressure fire mains, the water mains and the pneumatic tubes from the Post Office building to the Broad St. and Reading terminals. The contract will amount to more than $2,000,000, and the company will receive a bonus of $175,000 if work is completed in 18 months.

DREDGING.—Philadelphia, Pa.—According to press reports, to expedite the dredging of the Delaware channel, the Government has offered to do Philadelphia's share of the work. Mayor Weaver has received a communication from Wm. H. Taft, Secry. of War, acceding to the city's request that the Government suction dredge Delaware construct the 30-ft. channel between the state line and Christian St., provided the city pays the whole cost of the operation out of the joint appropriation of $750,000 made by the city and state for that purpose. The War Department estimates that if the Delaware does the work the cost will be less than 10 cts. per cu. yd., as compared with 17 and 18 cts. per cu. yd. asked by private contractors under bids already opened and discarded as excessive.

TUNNEL.—Detroit, Mich.—We are informed that preliminary negotiations are about completed and work will begin in the very near future on the tunnel of the Detroit River Tunnel Co., under the Detroit River. An 18 × 58 ft. shaft has been sunk on the American side to a depth of 67 ft., and one the same size has been sunk 84 ft. on the Canadian side. A number of bids for the construction have been received, but no contract has been awarded. The actual tunnel construction will cost approximately $7,000,-000, and the electrical equipment about $2,-000,000 more, as it is definitely decided to use electrical power transmission. The time to complete the tunnel will be about three years. The length of this tunnel, including approaches, will approximate 12,800 ft. The subaqueous portion of the tunnel will be 2,625 ft., and other portions are to be as follows: Easterly open cut, 3,400 ft.; easterly approach tunnel, 3,100 ft.; westerly open cut, 1,540 ft.; westerly approach tunnel, 2,135 ft. The soil to be excavated consists principally of blue clay, with greater or less admixtures of gravel and sand. In the borings taken on each side of the tunnel site, at intervals of 100 ft. throughout the entire length of the subaqueous and approach tunnels, hardpan was struck at about 35 ft. below the lowest point in the bed of the river.

CONTRACT PRICES.

[Where (*) precedes items under Contract Prices the work was advertised in Engineering News.]

CAST-IRON PIPE AND SPECIAL CASTINGS.—New York, N. Y.—Three bids were received on May 2 by Department of Water Supply, Gas and Electricity, for furnishing and delivering (1) 4,100 tons straight cast-iron pipe, and (2) 400 tons special castings, in connection with the Canarsie pumping station, near Ave. D and Remsen Ave., Boro. Brooklyn. The price per ton was as follows: U. S. Cast-Iron Pipe & Foundry Co., 71 Broadway, (1) $29.85, (2) $57.50; Warren Foundry and Machine Co., 170 Broadway, (1) $29.40, (2) $58; John Fox & Co., 253 Broadway, (1) $29.75, (2) $55.

*RESERVOIR, HEAD HOUSE, ETC.—Cincinnati, Ohio.—Two bids were submitted on May 8 for construction of a head house, chemical house, filter house, valve houses, and of a wash water reservoir, and other work near California, Ohio. The Chief Engineer's estimate was $244,000. The bids in detail were: (1) S. Eid Concrete Steel Co.; (2) S. P. Hazen & Co., both of Cincinnati:

*CANAL WORK.—Glendive, Mont.—D. H. FREEMAN & CO., of St. Cloud, Minn., who were awarded contract on April 24 for Division 2, main canal, Lower Yellowstone Project, submitted the following itemized bid, which was the only one received for this work:

105,500 cu. yds. excavation, class 1.	$0.22
1,300 cu. yds. excavation, class 2....	0.32
1,200 cu. yds. excavation, class 3....	0.60
1,000 cu. yds. excavation, class 4....	1.50
150,000 cu. yds. overhaul, per 100 ft.	0.015
800 ft. terra cotta pipe, 24-in......	2.50
2,000 cu. yds. puddling	0.60
Total	*$251,516

*Bid made on condition of immediate acceptance or rejection.

BIDS RECEIVED ON MAY 8 FOR RESERVOIR, HEAD HOUSE, ETC., AT CINCINNATI, O.

	(1) Price bid.	(1) Amount.	(2) Price bid.	(2) Amount.
8,000 cu. yds. general excavation	$0.90	$7,200	$1.00	$8,000
Head house, complete	....	44,018	....	49,159
Chemical house, complete	....	68,658	....	55,894
Filter house, complete	....	57,813	....	45,791
Chimney and flue connection, complete.......	....	7,263	....	6,261
Boilers and steam heating, complete..........	....	15,900	....	14,700
Electric wiring and lighting of the head, chemical and filter houses, complete	....	11,440	....	14,156
Plumbing, complete.......................	....	5,050	....	7,500
Valve and shaft houses:				
a—Two valve houses at weir, complete........	....	9,317	....	10,304
b—Two shaft houses, complete...............	....	7,846	....	7,780
c—Five valve houses around basins, complete.	....	14,307	....	15,265
Setting 183 switchboard panels, complete......	....	1,680	....	2,000
Furnishing 160 stop planks & 8 lifters, complete	....	748	....	1,180
Wash water reservoir, complete..............	....	5,648	....	9,547
Valve chamber for 36-in. valve, complete.......	....	320	....	250
Additional concrete:				
a—100 cu. yds. 1 to 7½ mixture.............	11.00	1,100	8.50	850
b—50 cu. yds. 1 to 6 mixture...............	11.50	575	10.00	500
c—50 cu. yds. reinforced concrete...........	22.00	1,100	15.00	750
Laying cast-iron pipe and valves:				
a—All piping and valves in and around the head, chemical and filter houses, complete	....	8,380	....	18,647
b—360 lin. ft. 36-in. pipe	3.50	1,260	4.70	1,692
c—400 lin. ft. 12-in. pipe	2.50	1,000	2.40	960
Laying an 8-in. vitrified pipe drain (1,310 lin ft.)	1.00	1,310	1.25	1,637
Six brick manholes, frame and covers complete.	....	514	....	450
175 cu. yds. macadam roadway	2.00	350	7.50	1,312
25 cu. yds. dry stone paving	5.00	125	8.85	221
50 sq. yds. cement walks	1.60	80	1.75	87
Total		$273,002		$274,895

*DREDGING. — Wilmington, Del. — The itemized bids submitted on April 30 for dredging the Mispillion River, Del., were as follows: Pennsylvania Dredging Co., Camden, N. J., 9.9 cts. per cu. yd., place measurement; Houston-Rickards Dredging Co., Philadelphia, Pa., 12.4 cts.; River & Harbor Improvement Co., Philadelphia, 14.3 cts. Capt. C. A. F. Flagler, Corps Engrs., is in charge.

*CANAL WORK.—Glendive, Mont.—Three bids were submitted on April 12 for Division 4, main canal, Lower Yellowstone Project. The bids in detail were as follows: (1) HENRY C. DELANEY, Williston, N. Dak. (awarded contract); (2) C. J. Murphy, Glendive, Mont.; (3) D. H. Freeman, St. Cloud, Minn.†:

BIDS RECEIVED AT GLENDIVE, MONT., FOR DIVISION 4, MAIN CANAL, LOWER YELLOWSTONE RECLAMATION PROJECT.

	(1)	(2)	(3)
463,200 cu. yds. excavation, class 1	$0.18	$0.179	$0.205
800 cu. yds. excavation, class 2	0.25	0.30	0.32
1,200 cu. yds. excavation, class 3	0.45	0.50	0.60
100 cu. yds. excavation, class 4	1.50	1.50	1.50
85,000 cu. yds. overhaul, per 100 ft..........	0.02	0.015	0.015
500 ft. terra cotta pipe, 24-in..............	2.75	4.50	2.50
1,000 cu. yds. puddling	0.75	0.75	0.60
Total	$88,091	$88,178	$99,207

†Bid made on condition of immediate acceptance or rejection.

*BRIDGE TOWERS, CABLES, SUPERSTRUCTURE.—New York, N. Y.—Bids were received on May 7 by J. W. Stevenson, Comr. Bridges, for furnishing the metal work for the anchorages and constructing the towers, cables, suspenders and suspended superstructure of the Manhattan Bridge, over the East River, between the Boroughs of Manhattan and Brooklyn. The itemized bids submitted were as follows; (A) Ryan & Parker Construction Co., 21 Park Row; (B) John Peirce Co., 277 Broadway; (C) General Erecting Co.; (D) Milliken Bros., 1 Broadway; (E) American Bridge Co., 42 Broadway:

BIDS RECEIVED ON MAY 7, 1906, FOR SUSPENDED SUPERSTRUCTURE, MANHATTAN BRIDGE, NEW YORK.

	Engineers' Estimate of Quantities.	(A) Quantity.	(A) Unit Price.	(B) Quantity.	(B) Unit Price.	(C) Quantity.	(C) Unit Price.	(D) Quantity.	(D) Unit Price.	(E) Quantity.	(E) Unit Price.
Anchorage Mate'l Delivered f. o. b. Bridge Site:											
Riveted work ....lbs.	1,335,600	1,336,000	8.0c	1,300,000	5.0c	1,335,600	$0.0383	1,355,800	$0.04	1,312,000	4.75c
Eye bars.......................... "	3,731,900	3,732,000	8.0c	3,750,000	5.0c	3,731,900	.0473	3,945,200	.042	3,728,000	5.0c
Pins.............................. "	307,500	307,500	10.0c	305,000	5.0c	307,500	.0630	817 600	.08	342,000	7.50c
Steel Castings.................... "	1,500	1,500	10.0c	2,000	9.0c	1,500	.0788	1,500	.065	1,500	20.0c
Bronze............................ "	400	400	$1.00	400	30.0c	400	.5710	400	.3636	500	$1.50
Iron Castings..................... "	18,500	18,500	8.0c	20,000	10.0c	18,500	.0619	85,600	.0381	22,000	10.0c
Towers:											
Riveted work including Architectural Metal Work ....lbs.	21,452,900	21,670,000	8.0c	21,300,000	7.44c	21,333,800	.0661	23,889,700	.0735	22,376,000	8.25c
Steel Castings.................... "	3,385,200	3,386,000	9.0c	3,385,000	9.0c	3,518,300	.0903	3,406,900	.0746	3,429,000	10.25c
Iron Castings..................... "	189,100	189,000	8.0c	189,100	9.0c	189,100	.1238	168,900	.0665	616,000	14.0c
Concrete, mortar, etc. ....cu. yds.	930	930	$10.00	930	$12.00	930	11.25	930	10.80	950	$15.00
Cables, Suspenders, etc..........	*30,200	*30,200	10.0c	*30,200	6.0c	*30,000	.1052	*30,200	.0564	*18,000	8.25c
Cables ....lbs.	12,536 200	12,537,000	12.5c	12,536,200	$12.00	12,536,000	.1429	13,015,576	.142	12,842,000	14.0c
Suspenders, hand ropes, etc...... "	1,153,600	1,154,000	10.0c	1,153,600	14.0c	1,200,000	.1699	1,500,104	.164	1,177,000	15.0c
Steel castings including cable bands, strand, shoes, anchorage saddles, rollers, etc..lbs.	1,744,600	1,744,000	9.0c	1,744,600	9.0c	2,050,000	.1283	2,120,192	.126	1,863,000	15.5c
Iron castings..................... "	54,500	54,500	10.0c	54 500	8.9c	55,000	.1069	88,100	.094	62,000	12.75c
Pins, bolts, nuts, etc............ "	383,000	383,000	10.0c	383,000	9.0c	191,000	.1080	96,000	.173	77,000	10.0c
Bronze............................ "	12,000	12,000	50.0c	12,000	30.0c	12 000	1.17	15,680	.60	12,000	40.0c
Zinc for Suspender Sockets........ "	25,200	25,200	50.0c	25,200	13.0c	25,000	.1547	24,722	.164	26,000	30.0c
Lead Fillers...................... "	7,400	7,400	10.0c	7,400	8.0c	7,000	.1547	6,500	1.00	7,500	10.0c
Suspended Superstructure:											
Nickel-steel Riveted Work ....lbs.	16,247,400	16,247,400	6.0c	16 400,000	8.0c	16,247,000	.0759	19,659,800	.079	16,541,000	10.0c
Medium Carbon Steel Riveted Work....... "	21,049,800	21,050,000	5.0c	21,100,000	5.5c	21,050,000	.0550	18,820,500	.067	21,612,000	7.85c
Steel Castings .... "	41,900	41,900	6.0c	120,000	7.0c	42,000	.0850	42,900	.08	136,000	10.0c
Iron Castings..................... "	32,200	32,200	5.0c	30,000	7.0c	32,000	.0698	33,000	.056	105,000	9.0c
Pins.............................. "	32,600	32,600	5.0c	35 000	7.0c	33,000	.0708	32,800	.10	54,000	9.75c
Bronze............................ "	6,300	6,300	50.0c	6 300	30.0c	6,300	.528	6,400	.35	12,000	$1.00
Inspection (Unit price $1.20 per ton) net tons.	41,684	....	$1.20	41,864	$1.20	42,000	$1.20	44,333	$1.20	43,186	$1.20
Total	....	....	$6,493,223	....	$6,596,638	....	$6,769,983	....	$7,566,192	....	$8,312,146

*Structural Steel.

U. S. POSSESSIONS AND CUBA.

The names of parties awarded contracts are printed in capital letters.

RAILWAY.—Luzon.—Cable advices from Manila state that contract for 425 miles of new railway in the Philippines has been awarded to SPEYER & CO., 24 Pine St., New York. It is reported that a new company will be formed to do the work.

TUG-BOAT.—Panama.—D. W. Ross, Gen. Purchasing Officer, Isthmian Canal Comn., Washington, has awarded to GEORGE ARCHER, 16 Beaver St., New York, contract for furnishing sea-going tug-boat, at Colon, for the sum of $42,000, f. o. b. New York.

LOCOMOTIVE CRANES.—Panama.—The Isthmian Canal Commission has awarded to the BROWNING ENGINEERING CO., Cleveland, Ohio, contract for furnishing four locomotive coaling cranes, 10-ton capacity, and four 20-ton capacity, at $25,200 and $33,300, respectively.

BOILERS.—Panama.—Bids were opened May 16 at the office of David W. Ross, Gen. Purchasing Officer Isthmian Canal Commission, Washington, D. C., for six horizontal return tubular boilers. Bids are as follows: A. D. Granger Co., 95 Liberty St., New York, $9,372, f. o. b. New York, $11,222, f.

o. b. Colon; Manning, Maxwell & Moore, 85 Liberty St., New York, $11,484; Motley, Green & Co., 66 Broad St., New York, $10,494; Oil City Boiler Works, 39 Cortlandt St., New York, $16,554; Phoenix Iron Works Co., Meadville, Pa., $9,900 and $10,950; Walsh & Weidner, Chattanooga, Tenn., $12,500.

ENGINEERING SUPPLIES.—Panama.—Bids are asked until 10.30 a. m., May 28, by the Isthmian Canal Commission, Washington, D. C., for the following supplies: 121,000 ft. vitrified sewer pipe, various sizes; 65,000 ft. extra wrought-iron pipe and fittings, various sizes; valves, bolts and screws, cylinder, engine and dynamo. D. W. Ross, Gen. Purchasing Officer.

BRIDGE.—Olongapo, P. I.—Bids are asked until 10 a. m., June 26, at the Bureau of Supplies and Accounts, Navy Dept., Washington, D. C., for furnishing at the naval station, Olongapo, P. I., a steel bridge, 60-ft. span, 15-ft. roadway. To be delivered at the water front at New York or San Francisco, at option of contractor. H. T. B. Harris, Paymaster-Gen., U. S. N.

STEEL DUMP BARGES.—Panama.—Bids were opened May 21 at the office of D. W. Ross, Isthmian Canal Commission, Washington, for six steel dump barges. The following bids were received: Ellicott Machine Co., Baltimore, Md., f. o. b. Baltimore, $148,400, f. o. b. Colon, $184,500, commence delivery in 120 days, complete in 280; Holland-American Dredge Building Syndicate, Washington, f. o. b. Colon, $210,000, delivery in 300 days; W. E. Streeter, 10 South St., New York, on Barney dumping boats, second-hand, no price specified, bid informal, no bond.

ELECTRIC LIGHT PLANT, ETC.—Panama.—Bids are asked until 10.30 a. m., June 8, by the Isthmian Canal Commission, for an electric light plant to be installed at Gorgona. There will be one 100-KW. generating set consisting of one 160-HP. engine and two direct connected generators of 50-KW. each; one complete four-panel switchboard. The specifications call for about 300 crossarms, 1,000 pins, 200 pole brackets, a quantity of crossarm braces, lag bolts, swivel pulleys, etc., 1,000 glass insulators, 15 lightning arresters, 114,000 ft. of various kinds of wire, 2,100 incandescent lamps and a quantity of other electrical equipment. (Advertised Engineering News.)

ELECTRICAL EQUIPMENT.—Panama.—Bids were opened May 2 at the office of the Isthmian Canal Commission, Washington, for the equipment of an electric plant to be situated in the Canal Zone, Isthmus of Panama. The lowest bidders on the several items are as follows: General Electric Co., Schenectady, N. Y., two 100-KW. engine type revolving field generators, $4,000, five-panel switchboard, $950, 63 transformers, $2,072; A. D. Granger Co., New York, one multipolar compound wound direct current generator (exciter), $788, three 120-HP. vertical boilers, $3,510; Ridgway Dynamo & Engine Co., New York, two 160-HP. tandem compound engines, $4,750.

EXPLOSIVES.—Panama.—Bids were opened May 22, at the office of David W. Ross, Gen. Purchasing Officer, Isthmian Canal Comn., Washington, for furnishing a quantity of explosives: item 1, 100,000 lbs. dynamite, 60%; item 2, 100,000 lbs. dynamite, 45%; items 3-7, exploders, etc. Bids were as follows: F. S. Banks & Co., New York, 1 and 2, $33,000; Fox Bros. & Co., New York, 1, $13,500; 2, $11,500; New York delivery; Laflin & Rand Powder Co., 170 Broadway, New York, 1, $13,000, $12,000; 2, $11,250, $10,750; $10,250, $9,750 (second prices are for alternates); Motley, Green & Co., New York, 1, $15,250; 2, $13,000; National Powder Co., New York, 1, $13,000; 2, $10,750; total, $25,992; New York or Norfolk delivery.

PIPE AND FITTINGS.—Panama. Bids were opened May 21 at the office of D. W. Ross, Gen. Purchasing Officer Isthmian Canal Commission, for wrought-iron pipe, fittings and valves. Bids were as follows: 61,000 ft. wrought-iron pipe: Cornell & Underhill, New York, $9,937, steel $10,563; E. F. Keating Co., New York, $11,716; United States Steel Products Export Co., New York, $10,296, Pancoast, Rogers & Fisher, New York, $14,378 and $11,062. Cast-iron and wrought-iron fittings: Cornell & Underhill, $65,236; Crane Co., Chicago, $53,344; E. F. Keating Co., $58,375; United States Steel Products Exports Co., $26,145, on part of class; Manhattan Supply Co., New York, $64,374. Valves (no bid on complete class). Crane Co., Chicago, $12,556; Manhattan Supply Co., $11,143.

FLAT CARS.—Panama.—Bids were opened May 19 at the office of D. W. Ross, Gen. Purchasing Agent Isthmian Canal Commission, Washington, D. C., for 1,000 wooden flat cars, 40 ft. long, 80,000 lbs. capacity, for a 5-ft. gage track. Bids were as follows: American Car & Foundry Co., New York, $1,145,000, commence delivery September, 1906, complete January, 1907; Mt. Vernon Car Manufacturing Co., Mt. Vernon, Ill., $1,214,000, commence delivery Jan. 2, 1907, complete in 90 days; South Atlantic Car & Manufacturing Co., Waycross, Ga., $1,129,220, commence delivery in 230 days, complete 300 days; Standard Steel Car Co., 170 Broadway, New York, $1,175,000, will deliver 300 in October, 300 in November, and 400 in December; alternate bid: wooden cars with steel underframe, $1,260,000; Pullman Co., Chicago, Ill., $1,336,000, commence delivery in 5 mos., complete in 10 mos.; J. K. Joyce, Chicago, Ill., 500 cars at $1,240 each, will deliver 125 each in November, December, January and February.

CONTRACT PRICES.

BARGE CANAL.—Albany, N. Y.—Itemized bids are here given which were submitted on May 8 and May 9, on Contracts 8, 11 and 10. Fully noted last week in Engineering News. Bidders on Contract No. 8 were: (A) Preliminary estimate; (B) Eastern Contract Co., Pittsburg; (C) MacArthur Bros. Co., 11 Pine St., New York; (D) Buffalo Dredging Co., Buffalo; (E) O'Brien & Hoolihan, Syracuse, N. Y.

Bidders on Contract No. 11 were: (A) Preliminary estimate; (B) NAUGHTON CO., 299 Broadway, New York; (C) FORT ORANGE CONSTRUCTION CO., Albany, N. Y. (awarded contract); (D) Butler Bros. Construction Co., 1170 Broadway, New York; (E) Mallory & Co., Brooklyn, N. Y.; (F) Ferguson Contracting Co., New York City; (G) Buffalo Dredging Co., Buffalo; (H) Mosier & Summers, Buffalo; (I) MacArthur Bros. Co., 11 Pine St., New York.

Bidders on Contract No. 10 were: (A) Preliminary estimate; (B) MacArthur Bros.; (C) Mosier & Summers; (D) Buffalo Dredging Co.; (E) O'Brien & Hoolihan and John Kelly.

MEXICO.

The names of parties awarded contracts are printed in capital letters.

RAILWAY IMPROVEMENTS.—Mexico.—The Interoceanic Ry. Co. will soon commence the work of changing gage from narrow to standard, at an estimated expense of $6,000,000. It has had engineers in the field for over a year locating changes in the line, to eliminate objectionable curves and grades.

RAILWAY TIES.—Mexico C... can Central Ry. Co. has aw... to JUAN F. TREVINO, lo... Kansas City, Mexico & Orient... ties.

STREET RAILWAY.—Igu... The state congress of Guerr... a bill for the construction of... in Iguala. The concession ... pany to extend its line to th... pan.

BIDS RECEIVED ON MAY 8 FOR CONTRACT NO. 8, ERIE CANAL, ALBANY, N. Y.

	(A)	(B)	(C)	(D)	(E)
Clearing, per lump sum	$300.00	$300.00	$250.00	$300.00	$400.00
365,000 cu. yds. all excavation	.55	.50	.65	.50	.55
100 M. B. M. sheeting and bracing	35.00	25.00	38.00	40.00	34.00
65,000 cu. yds. forming embankment	.15	.15	.17	.17	.12
300 cu. yds. puddle	1.50	1.50	1.50	1.50	2.00
114 M. B. M. yellow pine or Douglas fir sawed lumber	45.00	50.00	52.00	45.00	45.00
4 M. B. M. white oak sawed lumber	100.00	100.00	100.00	100.00	90.00
3,300 foundation piles 16 ft. long	5.12	5.00	5.80	5.12	5.00
4,100 foundation piles 18 ft. long	5.76	5.50	6.80	5.76	5.76
1,100 foundation piles 20 ft. long	6.40	6.00	7.60	6.40	6.40
8,900 foundation piles 25 ft. long	8.00	7.50	9.50	8.00	8.20
350 foundation piles 30 ft. long	9.60	9.00	11.00	9.60	9.75
450 M. B. M. wooden sheet piling	35.00	35.00	38.00	35.00	45.00
21,000 sq. ft. steel sheet piling	1.00	.80	1.15	1.10	1.00
89,500 cu. yds. second class concrete	7.00	7.00	7.70	7.00	7.00
1,600 cu. yds. third class concrete	5.75	6.00	6.25	5.75	6.00
4,200 cu. yds. grouted filling	2.50	2.50	2.80	2.75	2.50
5,000 cu. yds. ballast	1.50	1.50	1.25	1.72	2.00
14,500 sq. yds. second class stone paving	2.00	2.00	2.25	2.00	2.00
4,000 cu. yds. riprap, first class	3.00	3.00	3.50	2.75	3.00
6,700 cu. yds. riprap, second class	3.00	3.00	3.25	2.75	3.00
700 cu. yds. riprap, third class	3.00	3.00	3.00	2.75	3.00
10,000 cu. yds. riprap, fourth class	2.00	2.00	2.30	2.00	2.00
21,000 lbs. iron castings	.035	.03	.04	.03½	.036
100 cast-iron idlers "A" including pins	4.00	4.00	4.50	4.40	4.00
12 cast-iron idlers "B" including pins	1.00	1.00	1.00	1.00	1.00
3,550,000 lbs. structural steel	.045	.03½	.04	.0495	.046
400,000 lbs. metal reinforcement	.04	.02	.04¾	.03½	.04
17 pairs uprights for dam 4, including bracing	910.00	700.00	1,000.00	1,000.00	900.00
33 pairs uprights for dams 5 and 6, including bracing	975.00	750.00	1,100.00	1,072.00	975.00
33 gates "A," "Ax" and "Ay"	1,200.00	950.00	1,300.00	1,320.00	1,300.00
44 Gates "B"	500.00	400.00	550.00	550.00	550.00
6 gates "C"	330.00	250.00	350.00	363.00	375.00
6 gates "D"	180.00	150.00	200.00	198.00	200.00
17 gates "E," "Ex" and "Ey"	1,130.00	900.00	1,200.00	1,243.00	1,170.00
100 shoes and anchorages for uprights	62.00	50.00	60.00	68.00	70.00
6 upper lock gates	2,800.00	2,200.00	2,600.00	3,080.00	2,900.00
6 lower lock gates	4,200.00	3,300.00	3,800.00	4,620.00	4,550.00
6 swing beams for needle dams, complete	1,600.00	1,250.00	1,400.00	1,760.00	1,850.00
558 needles	12.00	10.00	11.50	13.20	13.00
12 supports for valve seats	206.00	150.00	150.00	226.60	215.00
12 lock valves	890.00	700.00	900.00	979.00	940.00
4,700 lin. ft. wrought-iron pipe railing	1.00	.80	.80	1.10	1.00
193,000 lbs. wrought-iron chain	.06	.04½	.06	.06½	.06
Total	$1,518,382	$1,433,817	$1,650,877	$1,539,645	$1,544,693
Add 15% for engineering inspection and contingencies	$227,758				
Total	$1,746,140				

CONTRACT NO. 11,

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
Clearing, per lump sum	$1,000.00	$1,000.00	$1,200.00	$1,200.00	$900.00	$1,000.00	$600.00	$1,000.00	$1,200.00
15,000 cu. yds. grubbing	.30	.30	.20	.30	.25	.30	.34	.30	.35
800,000 cu. yds. all excavation	.65	.52	.51	.59	.54	.56	.78	.57	.63
200,000 ft. B. M. sheeting & bracing	35.00	45.00	35.00	35.00	35.00	35.00	35.00	35.00	37.50
96,000 sq. ft. rock channeling	.16	.16	.14	.15	.15	.20	.18	.16	.19
115,000 cu. yds. forming embankment (First Class)	.15	.15	.10	.15	.15	.12	.18	.15	.18
275,000 cu. yds. forming embankment (Second Class)	.10	.10	.05	.10	.10	.10	.12	.10	.12
6,000 cu. yds. lining	1.00	1.00	.50	1.25	1.00	1.40	1.20	1.00	1.00
130,000 ft. B. M. spruce sawed lumber	35.00	45.00	32.00	35.00	35.00	35.00	35.00	35.00	40.00
14,000 ft. B. M. white oak sawed lumber	100.00	100.00	100.00	80.00	100.00	100.00	100.00	100.00	100.00
50 foundation piles, 15 ft. long	4.00	4.00	4.00	5.00	4.00	5.00	4.50	4.00	4.50
300 foundation piles, 20 ft. long	5.00	5.00	5.00	6.00	5.00	6.50	6.00	5.00	5.50
165,000 cu. yds. concrete	6.00	5.40	5.00	5.50	5.20	5.55	5.56	4.60	5.50
12,000 cu. yds. wash wall	2.00	2.00	2.00	2.50	2.00	1.75	2.30	2.00	2.00
250 lin. ft. 12-in. vitrified pipe laid	.50	.50	.50	.50	.50	.50	.50	.50	.50
250 lin. ft. trenching and backfilling for 12-in. vitrified pipe	.20	.20	.20	.50	.20	.20	.20	.20	.22
600 sq. yds. cobblestone paving	.75	.75	.75	.70	.75	1.50	.75	.75	.80
20,000 lbs. steel castings	.06	.06	.06	.08	.05	.06	.06	.06	.06
380,000 lbs. iron castings, plain	.03½	.03½	.03	.03¼	.02½	.04	.03½	.03½	.04
90,000 lbs. iron castings, machined	.10	.10	.08	.08	.08	.10	.08	.10	.11
110,000 lbs. structural steel	.05	.05	.05	.04½	.04	.08	.05	.05	.05
450,000 lbs, metal reinforcement	.04	.04	.03	.03¼	.03	.04	.03½	.04	.04½
700 expansion bolts in place	1.50	1.50	1.50	1.00	1.50	1.50	1.50	1.50	1.50
20,000 lbs. ⅝-in. log chains in fenders	.10	.10	.07	.07	.08	.10	.07	.10	.10
300 lin. ft. standard gas pipe railing	1.50	1.50	1.50	1.25	1.50	1.50	1.50	1.50	1.25
Total	$1,671,385	$1,437,775	$1,359,475	$1,539,340	$1,437,775	$1,531,075	$1,714,330	$1,376,385	$1,592,000
Add 15% for engineering, inspection and contingencies	250,708								
Total	$1,922,093								

BIDS RECEIVED ON MAY 9 FOR CONTRACT NO. 10, OSWEGO CANAL, ALBANY, N. Y.

		(A)	(B)	(C)	(D)	(E)
Clearing, per lump sum		$100.00	$100.00	$100.00	$120.00	$100.00
2,800 cu. yds. grubbing		.30	.32	.30	.36	.30
475,000 cu. yds. all excavation		.80	.92	.86	.96	.97
50 M. B. M. sheeting and bracing		35.00	40.00	35.00	42.00	35.00
5,000 sq. ft. channeling		.20	.24	.20	.24	.20
86,000 cu. yds. forming embankment		.15	.17	.15	.18	.15
2,000 cu. yds. lining		1.50	1.50	1.50	1.80	1.50
2,400 cu. yds. ballast		1.00	1.00	1.00	1.20	1.00
25 M. B. M. hemlock sawed lumber		30.00	35.00	30.00	36.00	35.00
112 M. B. M. spruce sawed lumber		35.00	38.00	35.00	42.00	35.00
8 M. B. M. white oak sawed lumber for mitre sills, etc.		100.00	100.00	100.00	120.00	100.00
3,800 cu. yds. first class concrete		8.00	9.00	8.00	9.60	8.10
90,000 cu. yds. second class concrete		7.00	8.00	6.40	8.40	7.10
3,600 cu. yds. wash wall		2.00	2.00	2.00	2.40	2.00
2,000 cu. yds. second class riprap		3.00	3.00	3.00	3.60	3.00
850 lin. ft. 30-in. vitrified pipe		2.50	3.00	2.50	3.00	2.50
850 lin. ft. trenching & backfilling for 30-in. vitrified pipe		2.00	2.40	2.00	2.40	2.00
70 lin. ft. 12-in. vitrified pipe		.60	.60	.60	.72	.60
70 lin. ft. trenching & backfilling for 12-in. vitrified pipe		.20	.24	.20	.24	.20
300 sq. yds. cobblestone paving		.75	.85	.75	.90	.75
4,800 sq. yds. stone paving (First Class)		3.00	3.25	3.00	3.60	3.00
1,700 sq. yds. stone paving (Second Class)		2.00	2.25	2.00	2.40	2.00
400 cu. yds. stone filling		1.00	1.00	1.00	1.20	1.00
13,700 lbs. steel castings		.06	.06	.06	.07	.06
270,000 lbs. iron castings, plain		.03½	.04	.03½	.04	.03½
50,000 lbs. iron castings, machined		.10	.10	.10	.12	.10
260,000 lbs. structural steel		.05	.05	.05	.06	.05
186,000 lbs. metal reinforcement		.04	.045	.04	.05	.04
10,000 lbs. ⅝-in. log chain		.10	.10	.10	.12	.10
140 expansion bolts in place		1.50	1.50	1.50	1.80	1.50
300 lin. ft. wrought-iron pipe railing		2.00	2.00	2.00	2.40	2.00
10 gate hoists, heavy		600.00	700.00	600.00	720.00	600.00
38 gate hoists, light		100.00	120.00	100.00	120.00	100.00
For removing buildings, including depreciation	$2,200.00					
For cleaning vaults, etc	100.00					
Add for contingencies	230.00					
		2,530.00	3,000.00	2,530.00	4,050.00	2,800.00
Total		$1,153,218				
Deduct estimated value of buildings in place		3,230.00	3,000.00	1,000.00	3,500.00	2,800.00
Total		$1,149,988				
Add 15% for engineering, inspection and contingencies.		172,498				
Total		$1,322,486	$1,310,638	$1,126,718	$1,381,180	$1,240,943

PAVEMENTS.—Veracruz.—The city of Veracruz is to issue bonds amounting to $1,754,400, the proceeds of which are to be applied to asphalt pavements, cement sidewalks, and improvements in public buildings.

RAILWAY.—Durango-Guadalajara.—The International Ry. Co. has engineers in the field making preliminary survey for line from Durango, capital of the state of the same name, to Guadalajara, Jalisco. The length of the proposed line will be about 250 miles.

RAILWAY.—Ocotlan-Ribera Castellanos, Jalisco.—It is stated that the Mexican Central Ry. Co. will build the proposed branch from Ocotlan to Ribera Castellanos, on Lake Chapala, within the next few months. As soon as the grading of the Ocotlan-Atotonilco line, now under construction, is completed, the contractors, Ross & Bell, of the City of Mexico, will take up the lake branch.

TUNNEL.—Guanajuato, Guanajuato.—The contract for driving a tunnel to relieve the city from danger of inundation by diverting flood water has been awarded to THE MEXICAN CONSTRUCTION & ENGINEERING CO., which has offices in the Edificio del Centro Mercantil, Nos. 17 and 18, City of Mexico. Paul S. Lietz is Gen. Mgr., and Maj. Porfirio Diaz, Jr., Ch. Engr. The tunnel will be 265 ft. long, and 25 ft. in diameter.

DAM.—Chihuahua, Chihuahua.—Engineer Marroquin y Rivera, Oficina de Provicion de Aguas Potable para la ciudad, Calle de la Penitencia, is preparing plans and specifications for the large dam to be erected on the Chuviscar River, to increase the water supply for the city of Chihuahua. Enrique C. Creel, governor of the state, says that immediately after the plans and specifications are completed, bids will be advertised for and contracts for the work let.

RAILWAY.—Jalisco, Chiapas, to Campeche, Campeche.—J. M. Neeland, Vice-Pres. and Gen. Mgr. of the Pan-American Ry. Co., with offices in the City of Mexico, states that the third preliminary survey for the projected line from Jalisco, state of Chiapas, on the main line of the road, to Tuxtla Gutierrez, capital of Chiapas, to San Juan Bautista, capital of Tabasco, and to Campeche, where it will connect with the United Railways of Yucatan, and thus extend to the cities of Merida and Progresso. The proposed road will be 808 miles long, and its estimated cost is $50,000,000, Mexican currency. The road will be known as the Mexican Pacific.

INDUSTRIAL NOTES.

THE UNITED STATES CAST-IRON PIPE & FOUNDRY CO. have established temporary offices at 951 Eddy St., San Francisco, Cal.

THE WELLMAN - SEAVER - MORGAN Co.'s Pacific Coast office, formerly at San Francisco, is now temporarily located at 220 Twelfth St., Oakland, Cal.

GENEVA FOUNDRY & MACHINE CO., Geneva, N. Y., has recently added to the equipment of its foundry, installing a No. 34 Newten Cupola made by Northern Engineering Works, Detroit.

THE FORT WAYNE ELECTRIC CO. has established temporary offices at 67 Blake Block, Oakland, Cal., but will occupy offices in the Atlas Bldg., San Francisco, as soon as that building is ready for occupancy.

THE PACIFIC PORTLAND CEMENT CO., with mills located at Cement, Solano County, Cal., writes us that it is producing from 2,000 to 2,300 bbls. of cement daily, and has in course of construction an additional mill which will have a capacity of at least 3,000 bbls. daily.

PAWLING & HARNISCHFEGER, of Milwaukee, Wis., have an order for 34 cranes for the extension to the Allis-Chalmers Co. works at West Allis, Wis. These range from 2½ and 3-ton cranes to 40 and 60-ton cranes; the motor equipment represents 1,953 HP. The original part of the works has 40 cranes of this make, with motors aggregating 2,133 HP.

THE RAILWAY AUTO CAR CO., 114 Liberty St., New York, has been organized and has acquired the patents and manufacturing data for the building of the Ganz steam auto car for railways. This type of car is extensively used on European roads. One is now being built for the Erie R. R. Co., and another is also now in use on the Florida East Coast Ry. Co. The new company is making preparations to build these cars in this country.

THE PRESSED STEEL TANK CO. has bought the plant of the old Milwaukee Electric Co., West Allis, and two new power pumps recently purchased of the Allis-Chalmers Co. will be installed in this new plant, together with one of the same size and design, which will be moved from the present plant. Each of these pumps will be built to work against an hydraulic pressure of 3,500 lbs. per sq. in., and will have a capacity of 150 gallons per minute.

NORTHWESTERN TILE CO., Fifth St. and Grand Ave., Milwaukee, Wis., is putting on the market a steel hand truck for handling concrete. It is built entirely of steel, has two steel wheels and will hold 5 cu. ft. of concrete. It is perfectly balanced, dumps forward, and is, of course, practically indestructible. This company has been building these trucks for its own use for some time, but the general demand has induced them to put them on the market.

THE ELECTRIC WELDING CO. reports the following as a partial list of recent sales of the Cummings system of steel reinforcements: Schwarzschild & Sulzberger's warehouse in New York; the Baulke Collender Co.'s dry kilns in Long Island City, the Pittsburg Reduction Co.'s plant in Quebec, Canada; the Pittsburg Reduction Co.'s plant at Massena Springs, New York; the Commercial Warehouse in Pittsburg, and the Atlas Automobile Garage in Pittsburg.

THE ALLIS-CHALMERS CO., in addition to the office recently established in Oakland, at 906 Broadway, has opened quarters in the Atlas Bldg., 602 Mission St., San Francisco, where its representatives may be found in readiness to transact all necessary business. Duplicate stocks of electrical and rock-crushing machinery are being prepared and shipped as rapidly as possible to replace those lost in the recent disaster. Every means has been taken for the prompt transaction of business, which, for the time being, was interrupted.

TRADE PUBLICATIONS.

ENGINES.—De La Vergne Co., New York City.

A set of six postal cards showing the Koerting gas engine, the Hornsby-Akroyd oil engine and the De La Vergne ice machines.

FLOOR SCRAPER.—Hurley Machine Co., 153 to 159 S. Jefferson St., Chicago, Ill. Paper; 3½ × 6½ ins.; pp. 4; illustrated.

This pamphlet illustrates the "Little Giant" scraper for surfacing oak, maple, birch, beech, yellow pine and parquet floors.

LEATHER PACKINGS.—Detroit Leather Specialty Co., Detroit, Mich. Paper; 6¾ × 9¼ ins.; pp. 32; illustrated.

This is principally a book of testimonials for "Wear Well" leather packings. These packings are not carried in stock but are made up according to the customer's specifications.

BALLAST CARS.—Rodger Ballast Car Co., Railway Exchange, Chicago, Ill. Paper; 4 × 8 ins.; pp. 10; illustrated.

The pamphlet gives cuts showing ballast being deposited by the Hart and Class C. S. convertible cars and distributed by the Dodger plow car. Also tracks after ballast has been deposited.

WATER SOFTENING AND PURIFYING SYSTEMS.—Wm. B. Scaife & Sons Co., Pittsburgh, Pa. Paper, 3½ × 6¼ ins.; pp. 4.

This folder is a photographic reproduction of two pages shown from the ledger of manufacturing concern operating 2,000 HP. water softening and purifying system, and shows the saving effected by its use.

HEAVY MACHINE TOOLS.—Niles-Bennet-Pond Co., New York City. Paper; 9 × 12 ins.; pp. 20; illustrated.

This is May number of the "Progress Reporter," and describes large lathes, milling machines, hydraulic presses, grinding machines, slotters, drills and bracing machines. There are fine cuts of each machine.

SKYLIGHTS.—Arthur E. Rendle, 428 Eleventh Ave., New York City. Paper; 10¾ × 15½ ins.; pp. 24; illustrated.

This catalogue is devoted principally to illustrations of buildings that are lighted by "Paradigm" skylights. There are also line cuts and descriptions showing the manner of laying these skylights, and some testimonials.

ASPHALT PAVEMENTS.—California-Asphaltum Sales Agency, Whitehall Bldg., New York City. Paper; 8½ × 6 ins.; pp. 20; illustrated.

This is a book of testimonials showing how the "Maltha Brand" of California asphalt has withstood usage in various cities. There are numerous cuts of streets in New York City laid with this pavement.

LIGHTING, HEATING AND PAINTING APPARATUS.—Walter Macleod & Co., 213 East Pearl St., Cincinnati, O. Paper; 4 × 9 ins.; pp. 48; illustrated.

The varied list of apparatus in this circular includes the Buckeye light, oil heaters and tire expanders, rivet forges, heaters for asphalt pavements, sand-blast outfits, and paint and whitewash sprayers. There are also acetylene gas generators and lamps.

PORTABLE RECORDING PRESSURE GAGES.—The Bristol Co., Waterbury, Conn. Paper; 8 × 10 ins.; pp. 4; illustrated.

The convenience, under some circumstances, of a portable recording pressure gage, is obvious. These portable gages are similar in action to, and can be furnished "in any of the hundred or more ranges and clock movements in which the standard recording gages are made."

SPARK COILS.—Edison Manufacturing Co., Orange, N. J. Paper; 3½ × 6 ins.; pp. 16; illustrated.

This booklet describes the Edison primary cell and spark coil for gas engines. The coil is so made that a heavy hot spark is obtained by the make and break sparking device. There is a price list of the various sized cells and parts, together with price of spark coil. The advantages that obtain by the use of Edison cells and spark coil are also noted.

STOCK GUARD.—The Climax Stock Guard Co., 503 Tile & Trust Bldg., Chicago, Ill. Paper; 7 × 5 ins.; pp. 8; illustrated.

The climax guard is made of vitrified clay, and therefore never warps or needs painting or repairing except to replace broken tile. The booklet contains line cuts of the guards with dimensions and price list, together with cuts of the guard in place on various railroads.

MOTOR DRIVES.—Gisholt Machine Co., Madison, Wis. Paper; 7½ × 9½ ins.; illustrated.

This circular is pages 49 and 50 of the company's bulletin and describes their standard 60-in. horizontal boring and drilling machines and 21-in. big bore lathes. These machines are driven by direct-current motors, connected by silent chain, having a speed range of 400 to 1,600 r. p. m.

WRIGHT DEMAND INDICATOR.—Stanley-G. I. Electric Mfg. Co., Pittsfield, Mass. Bulletin No. 604; paper; 6 × 9 ins.; pp. 16; illustrated.

This bulletin supersedes bulletin No. 293 and describes the indicator, giving sizes in ampere capacity, with price. It also describes briefly the demand system of charging and notes various uses for which the demand indicator can be advantageously employed.

CORLISS ENGINES.—Murray Iron Works, Burlington, Ia. Catalogue No. 56; paper; 9¼ × 12 ins.; pp. 72; illustrated.

Many illustrations are given of the different types of engines manufactured. The company also makes a line of air compressors, boilers and feed water heaters which are shown and described. There are details of governors, Corliss valves and valve gears, dash pots, automatic engine stops, etc. The book contains tables of dimensions and rating for the different apparatus.

MOTORS AND GENERATORS.—Crocker Wheeler Co., Ampere, N. J. Bulletin No. 64; paper; 7½ × 9¾ ins.; illustrated.

These machines are the form "I" type which have been on the market for several years, although certain modifications have recently been made in their design. They are made in sizes of 3 to 45 HP. motors, 2½ to 40 KW. generators for 125, 250 and 550 volts. The motors are especially adapted to machine tool drawing. The bulletin is well supplied with cuts, tables of dimensions and list of parts.

LOCOMOTIVE CRANES, BUCKETS AND TUBES.—The Willman-Seaver-Morgan Co., Cleveland, Ohio. Paper; 6 × 9 ins.; pp. 32; illustrated.

The book describes and illustrates the numerous uses for which the standard 10-ton locomotive crane is adapted, also the Hulett patent standard gage locomotive crane and Hulett patent excavating bucket. There are dimension sheets and capacity tables for both cranes and buckets.

GRAPHITE PAINT FOR STRUCTURAL WORK.—Chicago Graphite Mfg. Co., 649 Railway Exchange Building, Chicago. Paper; 6 × 9 ins.; pp. 19; illustrated.

This very attractive pamphlet sets forth the advantages of carbon paints as compared with other paints for the preservation of structural steel and iron. Specifications for painting are also given. The illustrations show a number of steel-frame buildings, steel bridges, etc., in which the metal is painted with the company's graphite paint.

ELECTRIC MOTORS.—Westinghouse Electric & Mfg. Co., Pittsburg, Pa. Two Circulars; paper; 6 × 9, 7 × 10 ins.; pp. 18, 6; illustrated.

Special Publication No. 7043 describes different styles of direct or alternating current fan motors, together with descriptions and dimensions of small constant speed power motors of 1/30, 1/12 and ⅛ HP.

Circular No. 1128 gives dimensions of 1/30, 1/12 and ⅛ HP., constant speed, alternating or direct current power motors.

CONCRETE PILING.—The Simplex Concrete Piling Co., 3400 Disston St., Philadelphia, Pa. Paper; 4½ × 9½ ins.; pp. 36; illustrated.

In the Simplex system a hollow steel pile with split hinged point is driven, and the point then allowed to open so that the pile may be withdrawn as concrete is filled into the hole. The methods of driving, etc., and the advantages of the system are described, and there are views of a number of foundations and buildings for which the system has been used. Testimonials are also given.

CRUSHING ROLLS.—Allis-Chalmers Co., Milwaukee, Wis. Bulletin No. 1412; paper; 8 × 10½ ins.; pp. 52; illustrated.

This is a reprint of catalogue 128, and is devoted to descriptions of the company's standard and auxiliary line of crushing rolls, and general information regarding crushing. The bulletin contains tables of the different sizes of rollers carried in stock, together with special sizes which will be made to order. There are also directions for erecting and operating the rolls, and cuts and sectional views of the crusher as well as cuts of complete crushing plants.

CONCRETE PAVEMENTS AND PERMANENT FOUNDATIONS.—Hassam Pavement Co., Worcester, Mass. Paper; 6 × 9 ins.; pp. 4; illustrated.

No descriptions are given in this pamphlet, but we learn from the company that the foundation consists of a layer of broken stone, rolled, and then grouted with a thin cement grout, and that the wearing surface is formed by first covering the foundation by a thick cement grout, then throwing on pea-sized broken stone, and finally rolling the material so placed. The foundation is designed for any kind of pavement. Both the foundation and the pavement are being tried at Worcester, Mass.

STEAM TURBINES.—The Terry Steam Turbine Co., Hartford, Conn. Paper; 6 × 9 ins.; pp. 12; illustrated.

The catalogue first enumerates some of the advantages of the steam turbine over reciprocating engines, and then very briefly describes the Terry steam turbine.

CONTINUOUS COAL CUTTER.—Sullivan Machinery Co., Railway Exchange, Chicago, Ill. Bulletin 48-F; paper; 6 × 9 ins.; pp. 16; illustrated.

This bulletin replaces bulletin 48-B and describes the operation and advantages of the Sullivan continuous coal cutter over the other methods of mining coal in room or pillar mines. This machine operates on its own power when cutting, moving or unloading, thus doing away with hand labor and saving time and expense. It is claimed that this machine will operate where others cannot, and that it cuts at a much faster rate.

SAND LIME BRICK.—Standard Brick Machinery Co., 114-118 Liberty St., New York City. 6 × 9 ins.; pp. 32; illustrated.

These bricks are made by a mechanical process known as the Huennekes System, of sand and lime, and it is claimed that they are superior in every way to clay bricks. The book describes the process of manufacture, stating that they can be made for not to exceed $3 per 1,000. There are also tables giving the results of tests made by Prof. Ira H. Woolson, of Columbia University, on the crushing and transverse strength and absorption, also freezing test by the United States Naval Academy. There are several testimonials.

CORRUGATED BARS FOR REINFORCED CONCRETE.—Expanded Metal & Corrugated Bar Co., St. Louis, Mo. Paper; 7 × 5 ins.; pp. 232; illustrated.

There are many line cuts with dimensions, together with illustrations of the completed reinforced concrete work. There are also some comparisons between costs of plain and reinforced concrete work. Some seventy pages of the catalogue are devoted to theory and formulas for figuring reinforced concrete beams, floors, etc. The book illustrates well many of the different purposes for which reinforced concrete has been used, and should be of aid to all interested in this class of work.

ELECTRIC HOISTS.—The Yale & Towne Mfg. Co., New York City. Paper; 6 × 9 ins.; pp. 24; illustrated.

These hoists are portable, although they can be used on a trolley system, and simply require a support that will carry the load to be lifted. The supporting hook is swivelled on ball bearings, so that the hoist can make a dragging lift at an angle of 45°. They are provided with swivel collector rings to prevent the leads twisting and solonoid brakes which allows of control from a distant point. They are made in sizes of 1 to 6 ton capacity. The catalogue contains complete tables of specifications, prices and dimensions, together with numerous cuts of the hoist installed, and should be in the hands of all users of lifting apparatus.

ELECTRIC MOTOR CONTROLLERS.—The Cutler-Hammer Mfg. Co., Milwaukee, Wis. 15 circulars; paper; 5 × 8 ins.; illustrated.

Two leaves are devoted to an index; two to telegraphic code, superseding issue of March, 1904; one to compound starting and regulating rheostats, superseding No. 24B of Feb., 1905; five to self-starters for alternating current motors; two to universal motor speed regulators, superseding No. 42 of July, 1901, and No. 40A of June, 1904; three to non-reversible compound controllers, superseding No. 88½ of Dec., 1904, No. 83 of Dec., 1903, and No. 81 of Dec., 1903.

MERCURY VAPOR LAMPS.—Cooper-Hewitt Electric Co., 220 W. 29th St., New York City. Two bulletins; paper; 7 × 10 ins.; pp. 8; illustrated.

Bulletin No. 10 supersedes bulletin No. 6, Jan., 1905, and describes the direct current mercury vapor electric lamps for general indoor illumination. These lamps operate on 98 to 244 volts and 35 amperes, lamps operating on voltages higher than 122 volts being placed in series.

Bulletin No. 11 describes the mercury vapor lamp for alternating currents, which requires 3.5 amperes at 110 volts, or 1.5 amperes at 220 volts, the frequency being 60-133 cycles. These lamps are also for general window illumination.

ELECTRIC LIGHTING.—Nernst Lamp Co., Pittsburg, Pa. Paper; 5 × 7¼ ins.; pp. 24; illustrated.

This is a little booklet describing the lighting of department stores by Nernst lamps.

BOILERS.—Coatesville Boiler Works, Coatesville, Pa. Paper; 3½ × 6 ins.; pp. 32; illustrated.

This booklet is a list of some of the users of the Coatesville Co.'s apparatus.

AIR PUMPS.—C. H. Wheeler Mfg. Co., Philadelphia, Pa. Paper; 10½ × 7 ins.; pp. 21; illustrated.

This is principally a book of cuts without dimensions illustrating different types of air pumps, cooling apparatus and surface condensers.

HOISTING MACHINERY.—Mead-Morrison Mfg. Co., Cambridge, Mass. Catalogue G.; paper; 6 × 9 ins.; pp. 20; illustrated.

Derrick swinging engines, belt-driven and electric hoists, and electric and belt-driven derrick swingers are illustrated. There is not much descriptive matter.

LOCOMOTIVE CRANES.—The Browning Engineering Co., Cleveland, O. Bulletin No. 23; 6 × 9 ins.; pp. 58; illustrated.

This bulletin illustrates the numerous uses for which the locomotive crane is adapted, and notes the different sizes of cranes, buckets, etc., manufactured.

FIRE DOOR FIXTURES.—Allith Mfg. Co., Taylor St. and 43d Ave., Chicago. Paper; 6¾ × 10 ins.; pp. 32; illustrated.

This is a detailed price list of fusible links, handles and all hardware and fixtures for fire doors and shutters of different patterns. A blue-print sheet shows the construction of a tin-clad fire door.

COAL-HANDLING MACHINERY.—C. W. Hunt Co., West New Brighton, Staten Island, N. Y. Catalogue 063; paper; 6½ × 9¼ ins.; pp. 60; illustrated.

This is a catalogue describing the numerous products of the company, such as towers, elevators, steam shovels, cable railways, hoisting engines, conveyors, scales, chutes, etc.

MACHINERY AND TOOLS.—Brown & Sharpe Mfg. Co., Providence, R. I. Paper; 3¾ × 5¾ ins.; pp. 514; illustrated.

This is 1906 edition of the company's general catalogue which has been thoroughly revised and supersedes former editions. The large number of tables and general information contained therein makes it a valuable book of reference for machinists.

ELECTRIC SIGNS.—Metropolitan Engineering Co., 1250 Atlantic Ave., Brooklyn, N. Y. Catalogue No. 101; paper; 6 × 9 ins.; pp. 32; illustrated.

Many of the different styles of signs now in use are illustrated. The cost of letters and panels are listed and there is also an article on the cost of operating various types of electric signs.

WATER TURBINES.—I. P. Morris Co., Philadelphia, Pa. Bulletin No. 2; paper; 8½ × 10½ ins.; pp. 10; illustrated.

This is a technical bulletin by W. M. White, Hydraulic Engineer of the company, showing the effect on the efficiency and power of a water-wheel designed for one specific head when operated under varying heads. The results are plotted in curves.

DRILLING MACHINERY.—The Edward Christman Co., Massillon, O. Paper; 6 × 9 ins.; pp. 58; illustrated.

The catalogue describes and illustrates the company's different styles of drilling machines together with supplies, fixtures, etc. These machines are adapted for drilling test holes for all purposes, and for boring for gas, oil, water, etc.

CENTRIFUGAL PUMPS.—Kingsford Foundry & Machine Works, Oswego, N. Y. 1906 Catalogue; paper; 9 × 6 ins.; pp. 46; illustrated.

These pumps are made in all sizes for all classes of work and are arranged for either electric, belt or steam engine drive. The book contains some general information on pumps and complete price lists and tables of speed.

STEAM SHOVELS, DREDGES, ETC.—The Marion Steam Shovel Co., Marion, O. Leather; 9 × 6 ins.; pp. 111; illustrated.

This handsome publication consists largely of full-page half-tone engravings of steam shovels, ditchers, ballast unloaders, dredges, etc., of various kinds engaged on various construction works and in clay pits, open iron ore mines, quarries. One of the views shows a steam shovel in use on a Russian railway. Standard and special designs are included, with descriptions, testimonials, lists of users, etc. Some views of the company's shops are also given.

PORTABLE TESTING SETS.—Leeds & Northrup, Philadelphia, Pa. Paper; 6 × 8¾ ins.; pp. 54; illustrated.

These testing sets are a combination of a Wheatstone bridge, rheostat and portable galvanometer placed in a carrying case. The catalogue shows the connections of the different sets and gives directions for their use, together with descriptions of some of the tests for which they are adapted. Portable reflecting and D'Arsonval galvanometers and "chloride of silver" testing batteries are also listed. There is a complete price list of all apparatus.

STEEL STUDS AND FURRINGS.—Berger Mfg. Co., Canton, O. Paper; illustrated.

This is a circular illustrating the numerous buildings in which Berger's "Prong-Lock" steel studs and furrings are used.

ROOFING.—Holten & Collins Co., Philadelphia, Pa. Two circulars.

One circular describes "Bestoid" roofing and the other "Noleaka" cement compound for coating old or new roofs.

GATES BALL MILL.—Allis-Chalmers Co., Milwaukee, Wis. Linen; 6¼ × 9¼ ins.; pp. 12; illustrated.

This is instruction book No. 5006, containing instructions for setting and operating the Gates ball mill.

MANUFACTURERS ISSUING TRADE CATALOGUES are requested to mail copies to the Pratt Institute Library, Brooklyn, N. Y. They will be carefully filed in the Applied Science Reference Room and kept open for public use.

FURNACE HOISTS.—The Brown Hoisting Machinery Co., Cleveland, O. Paper; 12 × 9 ins.; pp. 19; illustrated.

This is a descriptive pamphlet of machinery for the automatic charging of blast furnaces and kilns, and includes the hoisting engines, cable incline and charging car, and stock distributor at the head of the furnace.

CRANES.—The Interstate Engineering Co., Bedford, O. Bulletin No. 7; paper; 9 × 6 ins.; pp. 71; illustrated.

This bulletin shows, principally by illustrations, the various lines of cranes, elevating and conveying machinery, pile drivers, concrete mixers, coaling stations, etc., manufactured by this company.

GEARED HOISTS.—The Wellman-Seaver-Morgan Co., Cleveland, O. Circular No. H-08; paper; 6 × 9 ins.; pp. 31; illustrated.

Self-contained geared hoist with single or double drums, are built by this company. The different styles are described, and tables of dimensions and capacity given.

BAND SAW MILLS.—Allis-Chalmers Co., Milwaukee, Wis. Bulletin No. 1700; paper; 8 × 10½ ins.; pp. 24; illustrated.

This circular describes the Allis double cutting telescopic band saw mill and appliances. This saw is so arranged that a maximum feed speed is always obtained, irrespective of the size of log.

TRANSFORMERS.—Crocker-Wheeler Co., Ampere, N. J. Bulletin No. 65; paper; 7½ × 10 ins.; pp. 8; illustrated.

Core type transformers for high tension power transmission are described. These transformers are manufactured in all sizes up to 4,000 KVA for any commercial frequency, and for all voltages up to 200,000 volts.

DEEP WELL PUMPS.—The Hill Machine Co., Anderson, Ind. Paper; 6 × 9 ins.; pp. 4; illustrated.

The pumps illustrated are driven by gearing from electric motors and from belt-pulley shafts. The advantages and special features of the pumps are described, and some general dimensions are given.

STEAM TRACKLAYING MACHINE.—J. H. Roberts, 125 La Salle St., Chicago. Paper; 6 × 8½ ins.; pp. 31; illustrated.

The distinguishing feature of this machine is that the rollers in the troughs along which the rails and ties are moved to the front of the tracklaying train are driven by gears from shafting operated by a steam engine on the pioneer car. Several pages of testimonials from railway engineers and contractors are given.

WIRE ROPE.—Broderick Bascom Rope Co., St. Louis, Mo. Price list G; paper; 3¼ × 6¼ ins.; pp. 72; illustrated.

This catalogue is a price list of wire rope, sockets, blocks, etc., and also contains short articles on logging, underground haulage, aerial wire rope tramways, splicing, construction of wire rope, and data concerning "Powersteel" rope.

ELECTRIC ROCK DRILLS.—H. D. Crippen Mfg. Co., 25 Broad St., New York City. Catalogue No. 10; paper; 6¼ × 9¼ ins.; pp. 80; illustrated.

The box electric drill, which is built in three sizes for direct current, is described. If only alternating current is available a converter has to be installed. The book also contains information and prices of electric hoists, electric blowers, electric generators and converter sets, wire, gasoline and oil engines, etc. Data, tables and formula are provided so that the apparatus and power required, together with the cost, may be readily determined.

ELECTRICAL APPARATUS.—General Electric Co., Schenectady, N. Y. Ten circulars; paper; 5¼ × 7¾ ins.; illustrated.

Flyer No. 2175 describes type S. C. speed controlling rheostats of 1 to 15 HP. capacity for 115.230 and 500 volts. There is a table of dimensions and diagram of operation.

Flyer No. 2178 illustrates key and keyless receptacles and contains price list.

Flyer No. 2179 illustrates all porcelain wireless clusters and contains price list.

Flyer No. 2180 illustrates porcelain sockets and contains price list.

Flyer No. 2181 describes receptacles for outdoor wiring, with price.

Flyer No. 2182 describes type M. A. 13 A. copper ribbon fuse box for motor circuits, up to 200 HP., of railway equipments. The methods of supporting the box, with dimensions, are illustrated.

Flyer No. 2183 describes type M. S. 8 hood switch for railway service, for car equipments not exceeding 200 HP.

Flyer No. 2184 describes type T., form D. and Form D-2 fuse holders for 2,300 and 6,600 volt systems. They supersede the "expulsion" type of holder.

Lightning arresters are described in Catalogue No. 1052. Various conditions which improve or retard the action of lightning arresters are noted, together with the effect of the metal used upon the discharge. There is a price list of the different styles and voltages, while a supplement contains dimensions, connections and instructions for installing the same.

Catalogue No. 7596 is a price list of parts for Sprague-General Electric Type M. control apparatus. Each piece of apparatus is illustrated and has catalogue number attached.

Catalogue No. 7597 is an illustrated price list of marine supplies, such as junction boxes, receptacles, switches, fuse boxes, etc.

There are also three price lists, Nos. 5145, 5136, 5147, giving prices of type H. and H. B. oil transformers and electric heating devices, respectively. No. 5145 supersedes No. 5138, and No. 5146, 5139.

For other Proposal Advertisements see pages 43, 44, 45, 46, 47, 48, of Advertisements and Construction News page 198.

U. S. ENGINEER OFFICE, New London, Conn., May 21, 1906.—Sealed proposals for dredging in Bridgeport harbor, Conn., will be received here until 12 o'clock, noon, June 21, 1906, and then publicly opened. Information furnished on application. HARRY TAYLOR, Maj., Engrs. 21-4t

FORT MEADE, S. DAK., May 21, 1906.—Sealed proposals, in triplicate, for window screens and screen doors, for six public buildings at Fort Meade, S. D., will be received here until 2 p. m., June 11, 1906. Bidders who are not manufacturers of the goods called for, will submit the name of the manufacturer from whom the goods are to be obtained. Information furnished upon application. U. S. reserves right to accept or reject any or all proposals or any part thereof. Specifications may be seen by application to the Quartermasters at Saint Paul, Omaha, Saint Louis and at this office. Envelopes containing proposals should be marked "Proposals for Screens, Fort Meade, S. D.," addressed, MAJOR GEO. K. HUNTER, Constructing Quartermaster. 21-3t

DEPARTMENT OF THE INTERIOR, Washington, D. C., May 3, 1906.—Sealed proposals will be received at the office of the Supervising Engineer, United States Reclamation Service, Portland, Oregon, until 2 o'clock p. m., June 29, 1906, for the construction of about 25 miles of canal, extending from the Umatilla River, near Echo, Oregon, to the proposed Cold Springs Reservoir, consisting of the following work: About 700,000 cubic yards of earth excavation, about 6,000 cubic yards of rock excavation, about 2,300 cubic yards of concrete and about 3,600 cubic yards of riprap, divided into two schedules. Particulars may be obtained at the offices of the United States Reclamation Service at Washington, D. C., and Portland, Oregon. E. A. HITCHCOCK, Secretary. 19-5t

FORT DUPONT, DELAWARE CITY, DEL., May 21, 1906.—Sealed proposed, in triplicate, will be received here until 11 a. m., June 14, 1906, for constructing, plumbing, heating and electric wiring one brick Post Exchange and Gymnasium at Fort DuPont, Del. Information furnished on application. U. S. reserves right to accept or reject any or all bids or any part thereof. Envelopes containing bids should be endorsed, "Proposals for Post Exchange," addressed CAPTAIN LOUIS F. GARRARD, JR., Q.-M. 21-3t

DEPARTMENT OF THE INTERIOR, Washington, D. C., May 8, 1906.—Sealed proposals will be received at the office of the United States Reclamation Service, Billings, Montana, until 2 o'clock p. m., June 20, 1906, for the construction of about 17 miles of canal, involving approximately 350,000 cubic yards of excavation. Plans, specifications and proposal blanks may be obtained from the Chief Engineer, Reclamation Service, Washington, D. C., or from the Engineer, Huntley, Montana. E. A. HITCHCOCK, Secretary. 20-5t

STREET PAVING.

Patton, Pa.

Sealed proposals will be received by the undersigned until Monday evening, June 11th, 1906, at 8 o'clock p. m., for paving of portions of the following streets in the Borough of Patton, Pa.:

Magee Avenue, about 600

Beadh Avenue, about 670

Fourth Avenue, about 350

Also proposals for standard crossings.

Plans may be seen at the office of the Borough Engineer, who will furnish specifications and blank proposals, upon which all bids must be made.

The Borough of Patton reserves the right to reject any or all bidds.

ED. S. MOORE, Borough Secretary.

H. C. YERGER, Borough Engineer. 21-2t

DAM.

Lakeville, Conn.

Bids for building of a new dam for the Lakeville Water Company will be received up to June first, 1906. Plans and specifications can be seen at the office of Robbins, Burrall & Co., Lakeville, Conn. The right is reserved to reject any and all bids.

21-1t GEO. KNIGHT, Treasurer.

WATER-WORKS.

Wyandotte, Mich.

Sealed bids are asked until 8 p. m., June 6th, for material for 4½ miles of 4", 6" and 8" water main, including hydrants, valves, fittings and pig lead. For specifications apply to JAS. G. PINSON, City Clerk, Wyandotte, Michigan.

Specifications for this material are on file at offices of Engineering News, New York and Chicago. 21-2

PAVING.

Meadville, Pa.

The Select and Common Councils of the City of Meadville, Pa., will receive separate sealed proposals up until 8 p. m., Wednesday, June 6th, 1906, for grading, paving and curbing of the street surrounding Diamond Park and Walnut street, from Diamond Park to Liberty Street, with vitrified brick. Approximately 5,340 square yards of paving. Information as to quantities, specifications, bidding blanks, etc., can be had at the office of the City Engineer.

21-1t H. S. ROBINSON, City Clerk.

GRADING.

York, Pa.

Proposals will be received at the office of the P. A. & S. Small Land Company, Centre Square, York, Pa., until noon on Tuesday, June 5th, 1906, for grading land situated in North York and Manchester Township.

Plans, specifications and form of proposal for the work, approximately 100,000 cu. yds. of earthwork, may be seen at the office of the P. A. & S. Small Land Company, Centre Square, York, Pa., or at the office of Hering & Fuller, Engineers, 170 Broadway, New York City. 21-2t

PAVING.

Bluefield, W. Va.

Sealed proposals will be received by the undersigned until 8 o'clock P. M., June 12th, 1906, for paving Bland Street, part of Mercer Street, and part of Bluefield Avenue, with paving brick or block.

The surface to be covered is approximately nine thousand six hundred (9,600) square yards.

Specifications will be mailed on application.

A certified check for $500.00 must be deposited with each bid. The Board of Supervisors reserves the right to reject any or all bids.

J. T. AKERS, 21-2t
Auditor, Bluefield, W. Va.

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., May 22, 1906.—Sealed proposals will be received at this office until 3 o'clock P. M., on the 13th day of June, 1906, and then opened, for the material and labor to change the discharge of Exhaust Fans Nos. 9 and 10 in the basement of the U. S. Post Office, Court House, etc., building at Chicago, Ill., in accordance with drawing and specification, copies of which may be had at this office or at the office of the Inspector of Public Buildings, Chicago, Ill. JAMES KNOX TAYLOR, Supervising Architect. 21-2t

PLAIN LETTERING

By PROF. HENRY S. JACOBY

Most comprehensive book on this subject. Contains standards of U. S. Engineer Corps, U. S. Geological and Geodetic Surveys, and Mississippi River Commission. Cloth, 10 x 7 inches; 82 pages, Price $3.00.

SEWER SYSTEM.

Cape Girardeau, Mo.

Sealed proposals for furnishing material and constructing a complete system of sewerage in Sewer District Number One, City of Cape Girardeau, in accordance with the plans and specifications and Ordinance No. 720 of said city, providing for constructing said system, will be received by the City Council of the City of Cape Girardeau, Missouri, until 8 o'clock p. m., Monday, July 2nd, 1906.

The work comprises about twelve miles of pipe sewers, eight to twenty-two inches in diameter, together with all necessary appurtenances.

Plans and specifications are now on file with the City Clerk at Cape Girardeau, Mo., and at the office of the engineer, Nashville, Tennessee, and at the offices of Engineering Record, New York; Engineering News, New York; American Contractor, Chicago, and Construction News, Chicago.

Printed specifications may be obtained by addressing Geo. E. Chappell, City Clerk, Cape Girardeau, Mo.

A certified check for $1,000 will be required with each bid for the construction of said sewers.

The right is reserved to reject any and all bids.

WILLIAM H. COERVER, Mayor.
GEO. E. CHAPPELL, City Clerk.
GRANBERY JACKSON, C. E., Engineer, Nashville, Tenn.
Cape Girardeau, Mo., May 15th, 1906. 21-3t

EXCAVATING.

Sandusky, Ohio.

Sealed proposals will be received at the office of the Board of Public Service, City Hall, until 12 o'clock M., Friday, May 25, 1906, for excavating bed rock and overlying materials from the established channel in Sandusky Bay immediately in front of the City of Sandusky, Ohio.

Plans and specifications may be seen and blank proposals can be obtained at the office of the Board of Public Service, after May 15th, 1906.

Each proposal must contain the full name of the party or parties making the same, and all parties interested therein, and must be accompanied by a certified check for Three Thousand ($3,000.00) Dollars, payable to the Board of Public Service of the City of Sandusky, Ohio, on a solvent bank in the City of Sandusky, Ohio, as surety that if the proposal be accepted a contract will be entered into in accordance with the terms of the plans and specifications.

No proposal will be entertained unless made on the blanks furnished by the Board of Public Service, and delivered at the office of the Board of Public Service, City Hall, previous to 12 o'clock M. on the day specified.

The City reserves the right to reject any or all bids.

WM. OHLEMACHER,
President Board of Public Service.
CHARLES THIEM,
20-2t Secretary Board of Public Service.

COURT HOUSE.

Brunswick, Ga.

The County Commissioners of Glynn County, Georgia, hereby invite sealed proposals for the construction of a County Court House. All bids must be filed by 12 o'clock noon, June 26th, 1906.

Plans and specifications of the proposed building are on file at the office of the Commissioners in Brunswick, Ga.; also at the office of the County Commissioners of Fulton County, Ga., and at the offices of Charles A. Gifford and Edward S. Betts, associated architects, 18 East 17th Street, New York City. A set of plans and specifications will be furnished to parties desiring to submit bids upon application to the undersigned, accompanied by certified check for $25, which amount will be refunded upon return of such plans and specifications. Full information will be furnished on application to the Clerk of Commissioners.

J. J. LOTT, Chairman,
A. O. TOWNSEND, Clerk,
21-2t Brunswick, Ga.

PAVING.

Clarion, Pa.

Sealed proposals will be received by the Council of the Borough of Clarion, Pa., until 7.30 P. M., June 18, 1906, for grading and paving on Main Street with vitrified bricks, about 18,000 sq. yds.

Proposal blanks and specifications may be obtained from R. W. Guetthoff, Secy., or from Fred V. Brown, Engineer, Clarion, Pa.

21-2t R. W. GUETHOFF,
Secretary.

ELECTRIC GENERATORS, ETC.

Winnipeg, Can.

Sealed tenders addressed to Ald. J. C. Gibson, chairman of Fire, Water and Light Committee, for supply of two 500-horsepower Electric Generators, switchboards, etc., for High Pressure Fire Service Water-Works, will be received at the office of the undersigned up to 3.30 p. m. on

MONDAY, JUNE 4, 1906.

Specifications and forms of tender may be obtained on application to H. N. Ruttan, City Engineer, Winnipeg, Canada.

Each tender must be accompanied by an accepted cheque or draft, payable to the order of the City Treasurer, or cash deposit for the sum called for in the form of tender supplied, which will be subject to forfeiture in case of failure on the part of the contractor to enter into a written contract, with approved sureties, if called upon to do so.

The city reserves the right to reject any or all tenders, or to accept any bid which appears advantageous to the city of Winnipeg.

C. J. BROWN,
City Clerk.

City Clerk's Office,
Winnipeg, May 9, 1906. 20-2t

SEWERS.

Mount Carmel, Pa.

Sealed proposals for the construction of intercepting outfall sewers will be received by the Borough of Mount Carmel, Pennsylvania, at the City Hall, up to eight o'clock P. M. of the eighth day of June A. D. 1906. Proposals to be addressed to John F. Gibbons, Chairman Sewer Committee, and endorsed "Proposal for Constructing Intercepting Outfall Sewers," and must contain a certified check, drawn upon a National Bank or Trust Company, and made payable to the Borough of Mount Carmel, for a sum equal to five (5%) per centum of the total amount of the proposal.

The work to be done consists of approximately 9,500 ft. of 18-in. terra cotta pipe, 4,900 ft. 12-in. terra cotta pipe, and 42 manholes. Plans may be seen, and specifications and blank forms of proposals and contract may be obtained either of the Chairman of Sewer Committee at Mount Carmel, Pennsylvania, or of the Consulting Engineer at Wilmington, Delaware. The right to reject any and all proposals is reserved.

JOHN F. GIBBONS,
Chairman Sewer Committee.
T. CHALKLEY HATTON,
20-3t Consulting Engineer.

WATER PIPE.

Office of the Board of Water Commissioners of the City of Yonkers.
Yonkers, N. Y., May 19, 1906.

Sealed proposals will be received by the Board of Water Commissioners of the city of Yonkers at a meeting thereof to be held at its office, Manor Hall, on Thursday, the 14th day of June, at 8 p. m., for entering into a contract to furnish and deliver the following cast-iron pipes:

500 lengths of 12-inch pipe at about 1,090 pounds per length of 12 feet.

100 lengths of 8-inch pipe at about 630 pounds per length of 12 feet.

1,300 lengths of 6-inch pipe at about 415 pounds per length of 12 feet.

100 lengths of 4-inch pipe at about 260 pounds per length of 12 feet.

Specifications and forms of proposals can be obtained at the office of the Board.

Each proposal must be sealed, addressed to the Board of Water Commissioners of the city of Yonkers, endorsed "Proposals for Pipes," and must be accompanied by the written consent of two sureties to become guarantors of the faithful performance of the contract.

The Board of Water Commissioners reserves the right to increase any or all of the foregoing quantities fifty per cent., and to accept or reject any or all proposals.

By order of the Board.

JOHN J. DEVITT, President.
A. W. KINGSBURY, Clerk. 21-1t

DEPARTMENT OF THE INTERIOR, Washington, D. C., May 12, 1906.—Sealed proposals will be received at the office of the United States Reclamation Service, Klamath Falls, Oregon, until 2 o'clock p. m., June 21, 1906, for the construction of 19 miles of canal, and 27 miles of laterals in Klamath County, Oregon, with checks, turnouts, culverts, bridges and other appurtenances, involving about 570,000 cubic yards of excavation, 1,550 cubic yards of concrete masonry, and about 35,000 ft. B. M. of lumber. Plans, specifications and forms of proposal may be obtained by application to the Chief Engineer of the United States Reclamation Service, Washington, D. C., the Supervising Engineer, 1108 Union Trust Building, Los Angeles, California, or the Project Engineer, Klamath Falls, Oregon. E. A. HITCHCOCK, Secretary. 20-2t

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., May 14, 1906.—Sealed proposals will be received at this office until 3 o'clock P. M. on the 14th day of June, 1906, and then opened, for the construction of a Wharf and Laundry at the United States Quarantine Station, Savannah, Georgia, in accordance with drawings and specification, copies of which may be had at the discretion of the Supervising Architect, by applying at the office or to the Medical Officer in Command, at Savannah, Georgia. JAMES KNOX TAYLOR, Supervising Architect. 20-2t

Reinforced Concrete

By A. W. Buel and Chas S. Hill

Second Edition. Revised and Enlarged

It was the intention of the publishers to issue this new edition on or before the first of May, 1906, and announcement of that date was duly published, but information since received, as to a series of new and important tests of Reinforced Concrete Beams made it advisable to consider a delay in the date of publication. After consultation with the authors, it was decided that on account of the valuable nature of these tests, the issue of the book would be delayed until June in order to enable us to include the results. Those already tabulated have been embodied in the text under "Methods of Calculation," and the balance will be comprised in an Appendix inserted at the end of the book, to prevent any loss of time in the final make-up and completion of the book, when all the results have been obtained.

While we realize that this delay has been somewhat of an inconvenience to the many engineers who have daily use for the book, and regard it as the standard authority on reinforced concrete construction, we feel sure that the introduction into it of these valuable data, including text, tables, formulas and diagrams, will warrant the delay, by their bringing the work most thoroughly up-to-date and making it even more fully than in the past, justify its claim as the most complete treatise on this subject to be had in the English language.

The Engineering News Publishing Co.
220 Broadway, New York

STREET PAVING.

Binghamton, N. Y.

Notice is hereby given that sealed proposals for repaving Main Street, State Street, Water Street, Court Street, Court Street Bridge, Ferry Street, Ferry Street Bridge, Washington Street, Lewis Street and Chenango Street, between the rails thereof and for 2 feet outside of the outside rails, with vitrified brick on a 6-inch hydraulic cement concrete foundation, and for resurfacing with asphalt, from 2 feet outside of the outside rails of the street railroad tracks to the curbs, except that the gutters shall be repaved with vitrified brick on a 6-inch hydraulic cement concrete foundation, in accordance with specifications now on file in City Clerk's Office, will be received at the City Clerk's Office until 5 o'clock P. M., May 28th, 1906, and will be opened by the Common Council at a meeting to be held on said day. Proposals must state the kind of brick and asphalt to be used; and separate price on broken stone and gravel concrete.

At the same time and place, proposals will also be received for re-paving the above-named streets and bridges with vitrified brick on a 6-inch hydraulic cement concrete foundation; proposals to state the kind of brick to be used, and separate prices on broken stone and gravel concrete, in accordance with specifications now on file in the Clerk's office.

APPROXIMATE ESTIMATE OF TOTAL RE-PAVING WITH BRICK AND ASPHALT.

Asphalt, 36,876 sq. yds.; brick, 23,778 sq. yds.; asphalt excavation, 1,962 cu. yds.; excavation for brick, 7,504 cu. yds.; new concrete, 4,163 cu. yds.

APPROXIMATE ESTIMATE OF TOTAL RE-PAVING WITH BRICK.

Brick, 60,748 sq. yds.; excavation, 18,966 cu. yds.; concrete, 9,914 cu. yds.

Specifications and approximate estimate of re-paving to be done on each street will be furnished on application to the City Clerk.

Blank forms will be furnished by the City Clerk on application.

The Council reserves the right to reject any or all bids. 20-2t

D. C. HERRICK,
City Clerk.

WATER METERS.

Office of the Board of Water Commissioners of the City of Yonkers.
Yonkers, N. Y., May 14, 1906.

Sealed proposals will be received by the Board of Water Commissioners of the city of Yonkers at a meeting thereof to be held at its office, Manor Hall, on Thursday, the 7th day of June, at 8 p. m., for entering into a contract to furnish and deliver 300 ⅝-inch water meters.

Each proposal must be sealed, addressed to the Board of Water Commissioners of the city of Yonkers, endorsed "Proposals for Water Meters."

The Board of Water Commissioners reserves the right to accept or reject any or all proposals.

By order of the Board.

JOHN J. DEVITT, President.
A. W. KINGSBURY, Clerk. 21-1t

VITRIFIED PIPE SEWERS, ETC.

Batavia, Ill.

Bids will be received until 2 o'clock P. M., Friday, June 1st, 1906, for the Material and Construction at Batavia, Ill., of a complete system of Vitrified Pipe Sewers, consisting of about seven miles of Pipe with Manholes, Catch Basins and Flush Tanks.

Copies of the Ordinance and specifications can be had on application and plans can be seen at the office of the Board of Local Improvements.

CORNELIUS COLLINS, President,
20-2t Board of Local Improvements.

PROPOSALS for equipment for electric light plant, line material, boiler plate, wire rope, horseshoes and nails, lead pipe, metals, disinfecting materials, charcoal, hospital furnishings, shoes, rubber boots and general miscellaneous supplies, office Isthmian Canal Commission, Washington, D. C., May 19, 1906. Sealed proposals, in triplicate, will be received at the office of the General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until 10.30 a. m., June 8, 1906, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and full information (Circular No. 310) may be obtained from this office or the offices of the Assistant Purchasing Agents, 24 State Street, New York City; Custom House, New Orleans, La.; 36 New Montgomery Street, San Francisco, Cal.; and 410 Chamber of Commerce Building, Tacoma, Wash.; also from Chief Quartermaster, Department of the Lakes, Chicago; Depot Quartermaster, St. Louis; Depot Quartermaster, Jeffersonville, Ind.; Chief Quartermaster, Department of the Gulf, Atlanta, Ga.; and the Commercial Club, Mobile, Ala. D. W. ROSS, General Purchasing Officer. 21-2t

WATER-WORKS.

Tallula, Illinois.

Bids will be received by the Village of Tallula, Illinois, until 7.30 o'clock p. m. of June 20th, 1906, for furnishing and constructing a system of water-works or parts thereof, in accordance with the plans and specifications of the Village.

Bids must be sealed and addressed to the Village Clerk, Tallula, Ill. Said bids must have endorsed thereon "Proposal for Water-Works." Certified check must accompany bids in the sum of five per cent. of the amount of bid; minimum check, $50.

Plans and specifications are on file and may be seen at the office of the Clerk at Tallula, Ill., and at the office of Owen Ford, Consulting and Supervising Engineer, Security Building, St. Louis, Mo.

The Village reserves the right to reject any and all the bids.

N. H. GREENE, President.

F. F. VOIGT, Clerk. 21-2t

WATER-WORKS.

Leesburg, Va.

Sealed proposals will be received until Tuesday, June 19, 1906, at 3.30 p. m., for labor and material to construct a water-works system for Leesburg, Va. About 3½ tons of cast-iron pipe, 6 tons special castings, 52 fire hydrants, 49 valves and boxes, tower and tank, triplex pump, gasoline engine, power-house and reinforced concrete pools will be required. Send sealed proposals to R. H. Tebbs, Leesburg, Va., marked "Proposals" on outside of envelope. Certified check for $250 will be required with each bid, check to be made payable to J. W. Bitzer, Mayor. Specifications furnished by Engineer on application. Committee reserves right to reject any or all bids.

CHARLES S. YORK, Consult. Engr.,
1526 E. Biddle St., Baltimore, Md.
21-1t 23-1t

TEST BORINGS.

The Board of Rapid Transit Railroad Commissioners, Room 401, No. 320 Broadway, New York.

Sealed bids or proposals will be received by the Board of Rapid Transit Railroad Commissioners at the above office until 12 o'clock noon, on Monday, June 4, 1906, at which place and hour the bids will be publicly opened and read; the award of the contract, if awarded, will be made by the Board of Rapid Transit Railroad Commissioners as soon thereafter as practicable, for making test borings on the lines of proposed Rapid Transit railway routes in the City of New York, Boroughs of Manhattan, The Bronx, Brooklyn and Queens. These test borings will include both diamond drill and wash borings.

The security required will be five thousand dollars.

No bid will be received or considered unless accompanied by either a certified check upon one of the State or National banks of the City of New York, drawn to the order of the Comptroller, or money, to the amount of $600.

Copies of a pamphlet containing further information for bidders, forms of proposal and contract, specifications and forms of bonds and certificates, and sets of lithographs of the contract drawings, can be obtained from the office of the Board on application.

ALEXANDER E. ORR, President.

BION L. BURROWS, Secretary. 21-2t

ROAD IMPROVEMENTS.

Pleasantville, N. Y.

Sealed proposals will be received by the Board of Trustees of the Village of Pleasantville, N. Y., at the Village rooms in said Village until eight o'clock p. m. on the 7th day of June, when they will be opened.

For macadamizing, grading and otherwise improving Marble Avenue from Bedford Road to the Village line, Washington Avenue from Rebecca Avenue to a point about five hundred (500) feet north of Grove Street, and Broadway from its intersection with the Bedford Road to the Village line, all in said Village.

Plans may be seen, blank forms of proposals and specifications and other necessary papers can be obtained on application at the office of the Village Clerk, or at the office of Byrne & Darling, Engineers in charge, White Plains, N. Y., on and after Saturday, May 26th.

The Board of Trustees reserves the right to reject any or all bids or to accept any bid which in their judgment may be most favorable to the Village.

Dated Pleasantville, N. Y., May 19th, 1906.

By order of the Board of Trustees.

W. S. MOORE,

21-2t Village Clerk.

STEAM ROAD ROLLER, CRUSHER, ELECTRIC MOTOR, ETC.

St. Cloud, Minn.

Sealed bids will be received by the undersigned until 8 p. m. of June 4, 1906, for the following:

One 15-ton steam road roller, f. o. b. cars St. Cloud.

One jaw stone crusher with a capacity of 18 to 20 tons per hour, with elevator and screen.

Bidders to furnish same complete set up in the city of St. Cloud.

Bids to be accompanied by either a sketch or full description of elevator and screen.

One electric motor for operating crusher.

All bids to be accompanied by a certified check of $100.

The right to reject any and all bids is reserved.

Respectfully submitted,
HENRY J. LIMPERICH,
21-2t City Clerk.

OFFICE COMMISSIONERS, DISTRICT OF COLUMBIA, Washington, D. C., May 21, 1906.—Sealed proposals will be received at this office until 12 o'clock, M., June 11, 1906, for constructing sewers. Forms, specifications, and necessary information may be obtained at this office. HENRY B. F. MACFARLAND, HENRY L. WEST, JOHN BIDDLE, Commissioners, D. C. 21-2t

SITUATIONS OPEN

WANTED.—Templet makers, layer-out, markers, punchers and riveters, familiar with bridge and building work; state experience. Address JACKSON & CORBETT BRIDGE & STEEL WORKS, The Rookery, Chicago. 21-1t

WANTED.—Structural engineers and draftsmen, $100.00 to $125.00 per month, in bridge department of large railroad system; must be graduate engineers and good draftsmen. In applying give full account of education and experience, send sample of drafting and lettering and furnish references. Address "A. A. 21," Engineering News, New York. 21-1t

WANTED.—BY a large contracting firm, New York City, structural engineers, checkers and draftsmen, experienced on mill buildings, office buildings and bridge work; good salary paid to the right men. Address "I. 21," Engineering News, New York. 21-4t

DRAFTSMEN.—First-class structural detailers; also one with experience on derrick work; state full particulars and least salary to receive consideration. Address "P. 21," Engineering News, New York. 21-1t

WANTED.—One or more good draftsmen for general engineering work. Address "O. 20," Engineering News, New York. 20-2t

WANTED.—Structural iron detailers; state age, salary expected and when able to report. Address GRAINGER & CO., Louisville, Ky. 20-2t

ARCHITECTURAL DRAFTSMAN wanted by Unit Concrete Steel Frame Co.; one experienced on heavy structural work preferred. UNIT CONCRETE STEEL FRAME CO., 1314 Commonwealth Building, Philadelphia, Pa. 21-2t

WANTED.—Sewerage engineer and constructor. Expert in designing systems and in construction work. Man willing to assume responsibility and invest capital (Not less than $5,000.00). Can establish a good connection with a fully organized sewage disposal company having in hand good work with future business secured. No agents. Address "K. A. 21," Engineering News, New York. 21-1t

WANTED.—First-class detailers on steel columns, girder and roof trusses for buildings. State age, references and salary expected. Address LEVERING & GARRIGUES CO., 552 West 23d St., New York. 21-1t

WANTED.—Several good checkers on steel columns, girders and trusses for buildings. State age, references and salary expected. Address "H. 21," Engineering News, New York. 21-1t

WANTED.—An engineer with some experience on sewer construction, to take charge of party and in charge of construction on pipe sewers. One having a transit preferred. Also a young man with some experience as draftsman on stadia topographical work. State salary, references. Address "W. A. 21," Engineering News, New York. 21-1t

WANTED.—A draftsman experienced in railroad construction work. Address BOX 905, Schenectady, N. Y. 21-1t

MECHANICAL DRAFTSMAN wanted in civil engineer's office; state age, experience and salary wanted. Address "I. A. 21," Engineering News, New York. 21-1t

A FIRM manufacturing filters and water purifying apparatus having capacities ranging from five thousand to five million gallons per day, desires a New York representative having an acquaintance with New York architects and builders. An ability to control orders of more importance than technical knowledge. Address UNITED WATER IMPROVEMENT CO., Pennsylvania Bldg., Philadelphia, Pa. 21-1t

FOR SALE
Cyclopedia of Engineering, 4 Volumes, bound in half morocco. Slightly damaged. Regular price, $18.00; will sell for $4.00.
Address, T. C. P., care Technical World Magazine, Chicago

FOR SALE
One Model 60 Marion Steam Shovel
DUE AUGUST 12th
HARRY W. PICKETT, 1109 House Building, Pittsburg, Pa.

FOR SALE
A slightly damaged Engineering Library, bound in three-quarter leather. Ten volumes. Regular price, $50.00; will sell for $15.00.
Address, T. C. P., care Technical World Magazine, Chicago

Civil Service Examinations

JUNE 2, 1906

Questions and Answers Covering Examinations for Positions of

Axeman	**$0.60**	Ready
Chainman and Rodman	**.60**	Ready, May 22
Leveler	**.60**	Ready, June 15
Transitman and Computer	**.60**	Ready
ASSISTANT ENGINEER:		
Rapid Transit Commission	**.75**	Ready
Aqueduct Comm., Water Supply, Docks, etc	**.75**	Ready, May 24
Draftsman: Topographical and Structural	**1.00**	Ready
Inspector: Masonry, Buildings, Sewers, etc	**.50**	Ready, June 20

Each Part Interleaved with Blank Pages for Additional Notes

The Questions cover several years' Examinations, and the Answers have been prepared by Engineers holding high positions in the service, and from the most reliable authorities

The Engineering News Publishing Co.
220 Broadway, New York

Miscellaneous Wants

SANITARY and hydraulic [illegible]ineer (29), civil engineering graduat[illegible] years' experience in Denmark, sew[illegible]ystem, sewerages, purification, etc[illegible]mployed as draftsman with railroad [illegible]mpany one year in New York City [illegible]ent salary $90). Desiring to start [illegible]nitary line best references. Addres[illegible] A. 20," Engineering News, New [illegible]k. 21-1t

WANTED
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